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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:06; Search time 43.3077 Seconds

(without alignments)

71.766 Million cell updates/sec

Title: US-09-787-443A-1

Perfect score: 11

Sequence: 1 ASKKPKRNIKA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1586107 segs, 282547505 residues

Word size: 0

Total number of hits satisfying chosen parameters: 22883

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: A Geneseq 29Jan04:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result		% Query						
No.			Length DB		ID	Descripti	Description	
1	11	100.0	11	3	AAY88527	Aay88527	NCAM Ig1	
2	11	100.0	11	5	ABG69329	Abg69329	Human neu	
3	6	54.5	11	3	AAY88553	Aay88553	NCAM Ig1	
4	6	54.5	11	. 3	AAY88557	Aay88557	NCAM Ig1	
5	5	45.5	11	3	AAY88554	Aay88554	NCAM Igl	
6	4	36.4	11	2	AAW53153	Aaw53153	PTP activ	
7	4	36.4	11	3	AAY88556	Aay88556	NCAM Ig1	
8	4	36.4	11	3	AAY88555	Aay88555	NCAM Ig1	
9	4	36.4	11	5	ABB74833	Abb74833	Nuclear p	

					-	77750060	3 F0060	• • • •
	10	3	27.3	11	1	AAP50268	-	Yeast alp
	11	3	27.3	11	2	AAR27765		BSA-bindi
	12	3	27.3	11	2	AAR30814	Aar30814	Humanised
	13	3	27.3	11	2	AAR34247	Aar34247	Mutant HT
	14	3	27.3	11	2	AAR34252	Aar34252	Mutant HT
	15	3	27.3	11	2	AAR34255	Aar34255	Mutant HT
	16	3	27.3	11	2	AAR34257		Mutant HT
	17	3	27.3	11	2	AAR34256		Mutant HT
	18	3	27.3	11	2	AAR34254		Mutant HT
				11	2			Mutant HT
	19	3	27.3			AAR34248		
	20	3	27.3	11	2	AAR34253		Mutant HT
	21	3	27.3	11	2	AAR34246		HTLV-I re
	22	3	27.3	11	2	AAR49995		Mouse OSF
	23	3	27.3	11	2	AAR67121		Factor V
	24	3	27.3	11	2	AAR70367	Aar70367	Borrelia
	25	3	27.3	11	2	AAR52710	Aar52710	Enkephali
	26	3	27.3	11	2	AAW06227	Aaw06227	LHRH anta
	27	3	27.3	11	2	AAW06228	Aaw06228	LHRH anta
	28	3	27.3	11	2	AAR68911		Factor-VI
	29	3	27.3	11	2	AAR67858		FVII/TF m
	30	3	27.3	11	2	AAW21329		Glucagon
								Islet amy
	31	3	27.3	11	2	AAW21466		
	32	3	27.3	11	2	AAW21467		Islet amy
*	33	3	27.3	11	2	AAR84537		Hepatitis
	34	3	27.3	11	2	AAR67274		Synthetic
	35	3	27.3	11	2	AAR99265		Myosin li
	36	3	27.3	11	2	AAW05350	Aaw05350	Residues
	37	3	27.3	11	2	AAR92022	Aar92022	Multiple
	38	3	27.3	11	2	AAW41825	Aaw41825	Modified
	39	3	27.3	11	2	AAW10458	Aaw10458	Human gro
	40	3	27.3	11	2	AAW10460		Human gro
	41	3	27.3	11	2	AAW33181		Mono-DTPA
	42	3	27.3	11	2	AAW23266		Tumour ne
	43	3	27.3	11	2	AAW39588		Human mel
			27.3	11	2	AAW09910		Prostate
	44	3						
	45	3	27.3	11	2	AAY22688	_	Neurokini
	46	3	27.3	11	2	AAW10197		Serum imm
	47	3	27.3	11	2	AAW18223		Mycobacte
	48	3	27.3	11	2	AAW10140		Hepatitis
	49	3	27.3	11	2			Immunizat
	50	3	27.3	11	2	AAW12550	Aaw12550	Japanese
	51	3	27.3	11	2	AAW39795	Aaw39795	Tobacco P
	52	3	27.3	11	2	AAW62014	Aaw62014	Light cha
	53	3	27.3	11	2	AAY20193	Aay20193	Human bet
	54	3	27.3	11	2	AAW78614		SH2 domai
	55	3	27.3	11	2	AAW62443		Human neu
	56	3	27.3	11	2	AAW79785		Amino aci
				11	2			Human V3
	57	3	27.3			AAW84064		
	58	3	27.3	11	2	AAY03664		Amino aci
	59	3	27.3	11	2	AAY42674		HHV-6 var
	60	3	27.3	11	3	AAY81921	_	Asparagin
	61	3	27.3	11	3	AAY82340		Humanised
	62	3	27.3	11	3	AAY85087	Aay85087	HBV surfa
	63	3	27.3	11	3	AAY88529	Aay88529	NCAM Ig1
	64	3	27.3	11	3	AAY88563		NCAM Ig1
	65	3	27.3	11	3	AAY88560		NCAM Ig1
	66	3	27.3	11	3	AAY88538		NCAM Igl
	50	5	_,		-			·

67 3 27.3 11 3 AAY99060 Aay99060 HLA 68 3 27.3 11 3 AAY78451 Aay78451 Human 69 3 27.3 11 3 AAY78449 Aay78449 Human 70 3 27.3 11 3 AAY8060 Aay90160 UPAR 71 3 27.3 11 3 AAY81884 Aay87899 Aay87899 M. tu 72 3 27.3 11 3 AAY81884 Aay81884 Yeast 73 3 27.3 11 3 AAY81884 Aay81884 Yeast 73 3 27.3 11 3 AAY81884 Aay81884 Yeast 73 3 27.3 11 3 AAB35570 Aab35570 Uteror 74 3 27.3 11 4 AAB97950 Aam97950 Human 76 3 27.3 11 4 AAM97950 Aam97950 Human 77 3 27.3 11 4 AAM97944 Aam97940 Vacci 78 3 27.3 11 4 AAB92043 Aab92043 Growt 80 3 27.3 11 4 AAB92043 Aab92043 Growt 80 3 27.3 11 4 AAB92043 Aab92043 Growt 81 3 27.3 11 4 AAB92073 Aau24973 Schiz 82 3 27.3 11 4 AAB67064 Aab67064 Recom 83 27.3 11 4 AAU26843 Aab20909 Rat m 84 3 27.3 11 4 AAU27153 Aau24973 Human 85 3 27.3 11 4 AAU27153 Aau27153 Human 86 3 27.3 11 4 AAU26843 Aau26843 Human 86 3 27.3 11 4 AAU27153 Aau27153 Human 87 3 27.3 11 4 AAU27153 Aau27153 Human 88 3 27.3 11 4 AAU27153 Aau27153 Human 89 3 27.3 11 4 ABP13080 Abp13080 HIV P 92 3 27.3 11 4 ABP13080 Abp13080 HIV P 93 3 27.3 11 4 ABP13080 Abp13080 HIV P 94 3 27.3 11 4 ABP13080 Abp14147 HIV P 93 3 27.3 11 4 ABP13080 Abp14147 HIV P 93 3 27.3 11 4 ABP13080 Abp141480 HIV P 95 3 27.3 11 4 ABP13080 Abp141480 HIV P 95 3 27.3 11 4 ABP13080 Abp14080 HIV P 95 3 27.3 11 4 ABP13080 Abp14080 HIV P 95 3 27.3 11 4 ABP13080 Abp14080 HIV P 95 3 27.3 11 4 ABP13080 Abp14080 HIV P 95 3 27.3 11 4 ABP13080 Abp14080 HIV P 95 3 27.3 11 4 ABP13080 Abp14080 HIV P 95 3 27.3 11 4 ABP14625 Abp14625 HIV P 99 3 27.3 11 4 ABP16896 HIV E									
69 3 27.3 11 3 AAY78449 Aay78449 Human 70 3 27.3 11 3 AAY90160 Aay90160 UPAR 71 3 27.3 11 3 AAY87899 Aay87899 M. Tu 72 3 27.3 11 3 AAY81884 Aay81884 Yeast 73 3 27.3 11 3 AAB35570 Aab35570 Utero 74 3 27.3 11 4 AAB97950 Aam97950 Human 75 3 27.3 11 4 AAM97950 Aam97950 Human 77 3 27.3 11 4 AAM97944 Aam97944 Human 77 3 27.3 11 4 AAB9160 Aam99160 Vacci 78 3 27.3 11 4 AAB92043 Aab92043 Growt 80 3 27.3 11 4 AAB92043 Aab92043 Growt 80 3 27.3 11 4 AAB09385 Aae09385 Human 81 3 27.3 11 4 AAU24973 Aau24973 Schiz 82 3 27.3 11 4 AAU24973 Aau24973 Schiz 83 3 27.3 11 4 AAU2973 Aau24973 Schiz 84 3 27.3 11 4 AAU29909 Aau09909 Rat m 85 3 27.3 11 4 AAU2984 Aau27153 Human 86 3 27.3 11 4 AAU27153 Aau24973 Human 86 3 27.3 11 4 AAU27153 Aau24973 Human 87 3 27.3 11 4 AAU27153 Aau26843 Human 88 3 27.3 11 4 AAU27153 Aau26843 Human 89 3 27.3 11 4 AAU27153 Aau26843 Human 80 3 27.3 11 4 AAU27153 Aau26843 Human 81 3 27.3 11 4 AAU27153 Aau26843 Human 82 3 27.3 11 4 AAU27153 Aau26843 Human 83 27.3 11 4 AAU27153 Aau26843 Human 84 3 27.3 11 4 AAU27153 Aau26843 Human 85 3 27.3 11 4 AAU27153 Aau26843 Human 86 3 27.3 11 4 AAU27153 Aau26843 Human 87 3 27.3 11 4 AAU27154 Aau26843 Human 88 3 27.3 11 4 AAU27154 Aau26844 Aau26844 Human 90 3 27.3 11 4 AAB64170 Aab64170 Human 90 3 27.3 11 4 AB913080 Abp13080 HIV P 91 3 27.3 11 4 ABP13080 Abp13080 HIV P 92 3 27.3 11 4 ABP14147 Abp14147 Abp14147 HIV P 93 3 27.3 11 4 ABP20760 Abp20760 HIV P 94 3 27.3 11 4 ABP20760 Abp20761 HIV P 95 3 27.3 11 4 ABP20761 Abp20761 HIV P 96 3 27.3 11 4 ABP2008 Abp13080 HIV P 97 3 27.3 11 4 ABP14880 Abp14880 Abp14880 HIV P 98 3 27.3 11 4 ABP19004 Abp19004 HIV P 98 3 27.3 11 4 ABP19004 Abp19004 HIV P 98 3 27.3 11 4 ABP19004 Abp19004 HIV P 98 3 27.3 11 4 ABP19004 Abp19004 HIV P 98 3 27.3 11 4 ABP19004 Abp19004 HIV P 99 3 27.3 11 4 ABP19004 Abp19004 HIV P	67	3	27.3	11	3	AAY99060		Aay99060	HLA class
70	68	3	27.3	11	3	AAY78451		Aay78451	Human gro
71	69	3	27.3	11	3	AAY78449		Aay78449	Human gro
72	70	3	27.3	11	3	AAY90160		Aay90160	UPAR targ
73	71	3	27.3	11	3	AAY87899		Aay87899	M. tuberc
74	72	3	27.3	11	3	AAY81884		Aay81884	Yeast SAH
75	73	3	27.3	11	3	AAB35570		Aab35570	Uteroglob
76	74	3	27.3	11	3	AAB35573		Aab35573	Uteroglob
77	75	3	27.3	11	4	AAM97950		Aam97950	Human pep
78	76	3	27.3	11	4	AAM97944		Aam97944	Human pep
79	77	3	27.3	11	4	AAM99160		Aam99160	Vaccine r
80	78	3	27.3	11	4	AAB84910		Aab84910	Peptide f
81 3 27.3 11 4 AAU24973 Aau24973 Schiz 82 3 27.3 11 4 AAB67064 Aab67064 Recommender 83 3 27.3 11 4 AAU09909 Aau09909 Rat mender 84 3 27.3 11 4 AAU27153 Aau27153 Human 85 3 27.3 11 4 AAU26843 Aau26843 Human 86 3 27.3 11 4 AAE05947 Aae05947 Basic 87 3 27.3 11 4 AAE12225 Aae12225 Mycob 88 3 27.3 11 4 AAB64173 Aab64173 Human 89 3 27.3 11 4 AAB64170 Aab64170 Human 90 3 27.3 11 4 ABP13080 Abp13080 HIV A 91 3 27.3 11 4 ABP13796 Abp14147 HIV A 92 3 27.3 11 4 ABP20760 Abp20760 HIV A 94 3 <t< td=""><td>79</td><td>3</td><td>27.3</td><td>11</td><td>4</td><td>AAB92043</td><td></td><td>Aab92043</td><td>Growth fa</td></t<>	79	3	27.3	11	4	AAB92043		Aab92043	Growth fa
82 3 27.3 11 4 AAB67064 Aab67064 Recommended 83 3 27.3 11 4 AAU09909 Aau09909 Rat mended 84 3 27.3 11 4 AAU27153 Aau27153 Human 85 3 27.3 11 4 AAU26843 Aau26843 Human 86 3 27.3 11 4 AAE05947 Aae05947 Basic 87 3 27.3 11 4 AAE12225 Aae12225 Mycob 88 3 27.3 11 4 AAB64173 Aab64173 Human 89 3 27.3 11 4 AAB64170 Aab64170 Human 90 3 27.3 11 4 ABP13080 Abp13080 HIV A 91 3 27.3 11 4 ABP13796 Abp13796 HIV A 92 3 27.3 11 4 ABP14147 Abp14147 HIV A 93 3 27.3 11 4 ABP20760 Abp20760 HIV A 94 3 27.3	80	3	27.3	11	4	AAE09385		Aae09385	Human her
83 3 27.3 11 4 AAU09909 Aau09909 Rat m 84 3 27.3 11 4 AAU27153 Aau27153 Human 85 3 27.3 11 4 AAU26843 Aau26843 Human 86 3 27.3 11 4 AAE05947 Aae05947 Basic 87 3 27.3 11 4 AAE12225 Aae12225 Mycob 88 3 27.3 11 4 AAB64173 Aab64173 Human 89 3 27.3 11 4 AAB64170 Aab64170 Human 90 3 27.3 11 4 ABP13080 Abp13080 HIV A 91 3 27.3 11 4 ABP13796 Abp13796 HIV A 92 3 27.3 11 4 ABP14147 Abp14147 HIV A 93 3 27.3 11 4 ABP20760 Abp20760 HIV A 94 3 27.3 11 4 ABP20751 Abp20751 HIV A 95 3 27.3 11 4 ABP23008 Abp14880 HIV A 96 3 27.3 11 4 ABP14880 Abp14880 HIV A 97 3 27.3 11 4 ABP19004 Abp19004 HIV B 98 3 27.3 11 4 ABP19475 Abp1475 HIV B 99 3 27.3 11 4 ABP19475 Abp14625 HIV B	81	3	27.3	11	4	AAU24973		Aau24973	Schizophr
84 3 27.3 11 4 AAU27153 Aau27153 Human 85 3 27.3 11 4 AAU26843 Aau26843 Human 86 3 27.3 11 4 AAE05947 Aae05947 Basic 87 3 27.3 11 4 AAE12225 Aae12225 Mycob 88 3 27.3 11 4 AAB64173 Aab64173 Human 89 3 27.3 11 4 AAB64170 Aab64170 Human 89 3 27.3 11 4 AAB64170 Aab64170 Human 90 3 27.3 11 4 AAB64170 Aab64170 Human 90 3 27.3 11 4 ABP13080 Abp13080 HIV A 91 3 27.3 11 4 ABP13796 Abp14147 Abp14147 HIV A 92 3 27.3 11 4 ABP20760 Abp20760 Abp20760 HIV A 94	82	3	27.3	11	4	AAB67064		Aab67064	Recombina
85 3 27.3 11 4 AAU26843 Aau26843 Human 86 3 27.3 11 4 AAE05947 Aae05947 Basic 87 3 27.3 11 4 AAE12225 Aae12225 Mycob 88 3 27.3 11 4 AAB64173 Aab64173 Human 89 3 27.3 11 4 ABP13080 Abp13080 HIV ABP13080 HIV ABP13796 Abp13796 HIV ABP13796 Abp13796 HIV ABP14147 Abp14147 HIV ABP14147 ABP20760 Abp20760 HIV ABP20760 HIV ABP20760 HIV ABP20760 HIV ABP20751 Abp20751 HIV ABP20751 ABP2004 HIV ABP2004 ABP2004 HIV ABP2004 ABP2004 HIV ABP2005 HIV ABP20755 ABP2005 HIV ABP20755 HIV ABP20055 HIV ABP20755 HIV	83		27.3	11	4	AAU09909		Aau09909	Rat mAb Y
86 3 27.3 11 4 AAE05947 Aae05947 Basic 87 3 27.3 11 4 AAE12225 Aae12225 Mycob 88 3 27.3 11 4 AAB64173 Aab64173 Human 89 3 27.3 11 4 AAB64170 Aab64170 Human 90 3 27.3 11 4 ABP13080 Abp13080 HIV P 91 3 27.3 11 4 ABP13796 Abp13796 HIV P 92 3 27.3 11 4 ABP14147 Abp14147 HIV P 93 3 27.3 11 4 ABP20760 Abp20760 HIV P 94 3 27.3 11 4 ABP23008 Abp20751 HIV P 95 3 27.3 11 4 ABP23008 Abp14880 HIV P 96 3 27.3 11 4 ABP14880 Abp14880 HIV P 96 3 27.3 11	84	3	27.3	11	4	AAU27153		Aau27153	Human Leu
87	85		27.3	11	4	AAU26843		Aau26843	Human Leu
88	86	3	27.3	11	4	AAE05947	*	Aae05947	Basic ami
89 3 27.3 11 4 AAB64170 Aab64170 Human 90 3 27.3 11 4 ABP13080 Abp13080 HIV F 91 3 27.3 11 4 ABP13796 Abp13796 HIV F 92 3 27.3 11 4 ABP14147 Abp14147 HIV F 93 3 27.3 11 4 ABP20760 Abp20760 HIV F 94 3 27.3 11 4 ABP20751 Abp20751 HIV F 95 3 27.3 11 4 ABP23008 Abp23008 HIV F 96 3 27.3 11 4 ABP14880 Abp14880 HIV F 97 3 27.3 11 4 ABP19004 Abp19004 Abp19004 HIV F 98 3 27.3 11 4 ABP19475 Abp19475 HIV F 99 3 27.3 11 4 ABP14625 Abp14625 HIV F	87		27.3	11	4	AAE12225		•	-
90 3 27.3 11 4 ABP13080 Abp13080 HIV A 91 3 27.3 11 4 ABP13796 Abp13796 HIV A 92 3 27.3 11 4 ABP14147 Abp14147 HIV A 93 3 27.3 11 4 ABP20760 Abp20760 HIV A 94 3 27.3 11 4 ABP20751 Abp20751 HIV A 95 3 27.3 11 4 ABP23008 Abp23008 HIV A 96 3 27.3 11 4 ABP14880 Abp14880 HIV A 97 3 27.3 11 4 ABP19004 Abp19004 HIV B 98 3 27.3 11 4 ABP19475 Abp19475 HIV B 99 3 27.3 11 4 ABP14625 Abp14625 HIV A	88			11	4	AAB64173			
91 3 27.3 11 4 ABP13796 Abp13796 HIV F 92 3 27.3 11 4 ABP14147 Abp14147 HIV F 93 3 27.3 11 4 ABP20760 Abp20760 HIV F 94 3 27.3 11 4 ABP20751 Abp20751 HIV F 95 3 27.3 11 4 ABP23008 Abp23008 HIV F 96 3 27.3 11 4 ABP14880 Abp14880 HIV F 97 3 27.3 11 4 ABP19004 Abp19004 HIV F 98 3 27.3 11 4 ABP19475 Abp19475 HIV F 99 3 27.3 11 4 ABP14625 Abp14625 HIV F	89		27.3	11	4	AAB64170			
92 3 27.3 11 4 ABP14147 Abp14147 HIV F 93 3 27.3 11 4 ABP20760 Abp20760 HIV F 94 3 27.3 11 4 ABP20751 Abp20751 HIV F 95 3 27.3 11 4 ABP23008 Abp23008 HIV F 96 3 27.3 11 4 ABP14880 Abp14880 HIV F 97 3 27.3 11 4 ABP19004 Abp19004 HIV F 98 3 27.3 11 4 ABP19475 Abp19475 HIV F 99 3 27.3 11 4 ABP14625 Abp14625 HIV F	90			11	4				
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99 3 27.3 11 4 ABP14625 Abp14625 HIV A					-				
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100 3 27.3 11 4 ABP16896 Abp16896 HIV E					_			_	
	100	3	27.3	11	4	ABP16896		Abp16896	HIV BO7 s

ALIGNMENTS

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RESULT 1
AAY88527
ID
     AAY88527 standard; peptide; 11 AA.
XX
AC
     AAY88527;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
     NCAM Igl binding peptide C3.
XX
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
OS
     Synthetic.
XX
```

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XX
     06-APR-2000.
PD
XX
     23-SEP-1999;
                    99WO-DK000500.
PF
XX
     29-SEP-1998;
                    98DK-00001232.
PR
                    99DK-00000592.
     29-APR-1999;
PR
XX
PA
     (RONN/) RONN L C B.
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
PA
     (OLSE/) OLSEN M.
PA
     (OSTE/) OSTERGAARD S.
PA
     (JENS/) JENSEN P H.
PA
     (POUL/) POULSEN F M.
PA
PΑ
     (SORO/) SOROKA V.
PA
     (RALE/) RALETS I.
     (BERE/) BEREZIN V.
PΑ
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PΙ
XX
     WPI; 2000-293111/25.
DR
XX
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
PT
     Parkinson's diseases.
PT
XX
     Claim 20; Page 82; 119pp; English.
PS
XX
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-
CC
     terminal. The present sequence represents a peptide which binds to the
CC
     NCAM Igl domain. The peptide can be used in a compound which binds to
CC
     NCAM-Iq1/Iq2 domains, and is capable of stimulating or promoting neurite
CC
     outgrowth from NCAM presenting cells, and is also capable of promoting
CC
     the proliferation of NCAM presenting cells. The compound may be used in
CC
     the treatment of normal, degenerated or damaged NCAM presenting cells.
CC
     The compound may in particular be used to treat diseases of the central
CC
     and peripheral nervous systems such as post operative nerve damage,
     traumatic nerve damage, impaired myelination of nerve fibres, conditions
CC
     resulting from a stroke, Parkinson's disease, Alzheimer's disease,
CC
     dementias, sclerosis, nerve degeneration associated with diabetes
CC
     mellitus, disorders affecting the circadian clock or neuro-muscular
CC
     transmission and schizophrenia. Conditions affecting the muscles may also
CC
     be treated with the compound, such as conditions associated with impaired
CC
     function of neuromuscular connections (e.g. genetic or traumatic shock or
CC
     traumatic atrophic muscle disorders). Conditions of the gonads, pancreas
CC
     (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart,
CC
     liver and bowel may also be treated using the compound. The compound is
CC
     used in a prosthetic nerve guide, and also to stimulate the ability to
CC
```

learn, and to stimulate the memory of a subject

WO200018801-A2.

PN

CC

XX

```
Query Match
                          100.0%; Score 11; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.9e-05;
                                                                             0;
           11; Conservative 0; Mismatches
                                                                 0; Gaps
 Matches
                                                  0; Indels
            1 ASKKPKRNIKA 11
Qу
              Db
            1 ASKKPKRNIKA 11
RESULT 2
ABG69329
ID
    ABG69329 standard; peptide; 11 AA.
XX
AC
    ABG69329;
XX
DΤ
    21-OCT-2002 (first entry)
XX
    Human neural cell adhesion molecule (NCAM) peptide #1.
DE
XX
KW
     Human; neural cell adhesion molecule; NCAM; heart muscle cell survival;
     acute myocardial infarction; central nervous system disorder; stroke;
KW
    peripheral nervous system disorder; postoperative nerve damage;
KW
    traumatic nerve damage; spinal cord injury; nerve fibre; schizophrenia;
KW
KW
    postischaemic damage; multiinfarct dementia; multiple sclerosis;
    nerve degeneration; diabetes mellitus; neuro-muscular degeneration;
KW
    Alzheimer's disease; Parkinson's disease;
KW
    Huntington's disease. atrophic muscle disorder; gonad degeneration;
KW
KW
    nephrosis.
XX
os
    Homo sapiens.
XX
PN
    WO200247719-A2.
XX
     20-JUN-2002.
PD
XX
     12-DEC-2001; 2001WO-DK000822.
PF
XX
PR
     12-DEC-2000; 2000DK-00001863.
XX
     (ENKA-) ENKAM PHARM AS.
PA
XX
     Bock E, Berezin V, Kohler LB;
PΙ
XX
    WPI; 2002-583473/62.
DR
XX
    Use of a compound comprising a peptide of neural cell adhesion molecule,
PT
     in the preparation of medicament for preventing death of cells presenting
PT
     NCAM or NCAM ligand and treating central nervous system diseases.
PT
XX
PS
     Claim 26; Page 39; 57pp; English.
XX
CC
     The invention relates to use of a compound (I) comprising a peptide which
     comprises at least 5 contiguous amino acid residues of a sequence of the
```

neural cell adhesion molecule (NCAM), its fragment, variant or its mimic,

for the preparation of a medicament for preventing death of cells

SO

CC

CC

CC

Sequence 11 AA;

```
of a medicament for preventing death of cells presenting the NCAM or an
CC
    NCAM ligand. The medicament is for the stimulation of the survival of
CC
CC
     heart muscle cells, such as survival after acute myocardial infarction.
     The medicament is for the treatment of diseases or conditions of the
CC
     central and peripheral nervous system, such as postoperative nerve
CC
     damage, traumatic nerve damage, e.g. resulting from spinal cord injury,
CC
     impaired myelination of nerve fibres, postischaemic damage, e.g.
CC
     resulting from a stroke, multiinfarct dementia, multiple sclerosis, nerve
CC
     degeneration associated with diabetes mellitus, neuro-muscular
CC
     degeneration, schizophrenia, Alzheimer's disease, Parkinson's disease and
CC
     Huntington's disease. The medicament is for the treatment of diseases or
CC
     conditions of the muscles including conditions with impaired function of
CC
     neuro-muscular connections, such as genetic or traumatic atrophic muscle
CC
     disorders, and for the treatment of diseases of conditions of various
CC
     organs, such as degenerative conditions of the gonads, pancreas (e.g.
CC
     diabetes mellitus type I and II) and kidney (e.g. nephrosis). ABG69329-
CC
     ABG69352 represent human NCAM peptides of the invention
CC
XX
SQ
     Sequence 11 AA;
                          100.0%; Score 11; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 2.9e-05;
  Best Local Similarity
            11; Conservative
                                0; Mismatches
                                                      Indels
                                                                              0;
 Matches
                                                   0;
                                                                 0;
                                                                     Gaps
Qу
            1 ASKKPKRNIKA 11
              Db
            1 ASKKPKRNIKA 11
RESULT 3
AAY88553
     AAY88553 standard; peptide; 11 AA.
ID
XX
    AAY88553;
AC
XX
     07-AUG-2000
DT
                 (first entry)
XX
     NCAM Ig1 binding peptide 116 used as a control peptide.
DE
XX
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
OS
     Synthetic.
XX
     WO200018801-A2.
ΡN
XX
PD
     06-APR-2000.
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
                    98DK-00001232.
PR
     29-SEP-1998;
     29-APR-1999;
                    99DK-00000592.
PR
XX
```

presenting the NCAM or an NCAM ligand. (I) is useful in the preparation

CC

```
(RONN/) RONN L C B.
PA
     (BOCK/) BOCK E.
PA
PA
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
     (OSTE/) OSTERGAARD S.
PΑ
     (JENS/) JENSEN P H.
PA
     (POUL/) POULSEN F M.
PA
     (SORO/) SOROKA V.
PΑ
     (RALE/) RALETS I.
PA
     (BERE/) BEREZIN V.
PΑ
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PI
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PΙ
XX
DR
     WPI: 2000-293111/25.
XX
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
PΤ
PT
     Parkinson's diseases.
XX
     Example 5; Fig 7; 119pp; English.
PS
XX
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N- \,
CC
     terminal. The invention relates to a compound containing a peptide Which
CC
     binds to the NCAM Ig1 domain. The compound binds to NCAM-Ig1/Ig2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
     presenting cells, and is also capable of promoting the proliferation of
CC
CC
     NCAM presenting cells. The present sequence represents a control peptide
     used in the identification of those binding peptides which can be used in
CC
CC
     the compound. The compound may be used in the treatment of normal,
     degenerated or damaged NCAM presenting cells. The compound may in
CC
     particular be used to treat diseases of the central and peripheral
CC
CC
     nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
CC
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
     guide, and also to stimulate the ability to learn, and to stimulate the
CC
     memory of a subject
CC
XX
     Sequence 11 AA;
SQ
                          54.5%; Score 6; DB 3;
                                                   Length 11;
  Query Match
                          100.0%; Pred. No. 6.3;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             6; Conservative
```

```
RESULT 4
AAY88557
    AAY88557 standard; peptide; 11 AA.
XX
AC
    AAY88557;
XX
     07-AUG-2000 (first entry)
DT
XX
    NCAM Iq1 binding peptide 120 used as a control peptide.
DE
XX
    NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
    Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
OS
     Synthetic.
XX
PN
    WO200018801-A2.
XX
PD
     06-APR-2000.
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
PR
     29-SEP-1998;
                    98DK-00001232.
     29-APR-1999;
                    99DK-00000592.
PR
XX
     (RONN/) RONN L C B.
PA
PΑ
     (BOCK/) BOCK E.
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
PΑ
     (OSTE/) OSTERGAARD S.
     (JENS/) JENSEN P H.
PA
     (POUL/) POULSEN F M.
PΑ
     (SORO/) SOROKA V.
PA
PA
     (RALE/) RALETS I.
PΑ
     (BERE/) BEREZIN V.
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PΙ
XX
     WPI; 2000-293111/25.
DR
XX
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
РΤ
     Parkinson's diseases.
PT
XX
PS
     Example 5; Fig 7; 119pp; English.
XX
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
```

```
CC
     domains (Iq domains). The Iq domains are numbered 1 to 5 from the N-
     terminal. The invention relates to a compound containing a peptide which
CC
    binds to the NCAM Iq1 domain. The compound binds to NCAM-Iq1/Iq2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
    presenting cells, and is also capable of promoting the proliferation of
CC
    NCAM presenting cells. The present sequence represents a control peptide
CC
     used in the identification of those binding peptides which can be used in
CC
     the compound. The compound may be used in the treatment of normal,
CC
     degenerated or damaged NCAM presenting cells. The compound may in
CC
    particular be used to treat diseases of the central and peripheral
CC
    nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
CC
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
CC
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
CC
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
     quide, and also to stimulate the ability to learn, and to stimulate the
CC
CC
     memory of a subject
XX
SQ
     Sequence 11 AA;
  Query Match
                          54.5%; Score 6; DB 3;
                                                   Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.3;
             6; Conservative
                                                   0; Indels
                                                                     Gaps
                                                                              0;
  Matches
                                 0; Mismatches
            6 KRNIKA 11
Qy
              11111
            6 KRNIKA 11
Db
RESULT 5
AAY88554
     AAY88554 standard; peptide; 11 AA.
ID
XX
AC
     AAY88554;
XX
DT
     07-AUG-2000
                  (first entry)
XX
     NCAM Igl binding peptide 117 used as a control peptide.
DE
XX
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
OS
     Synthetic.
XX
PN
     WO200018801-A2.
XX
PD
     06-APR-2000.
XX
```

```
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
PR
     29-SEP-1998;
                    98DK-00001232.
PR
     29-APR-1999;
                    99DK-00000592.
XX
     (RONN/) RONN L C B.
PΑ
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
PA
     (OSTE/) OSTERGAARD S.
PA
     (JENS/) JENSEN P H.
PA
     (POUL/) POULSEN F M.
PΑ
     (SORO/) SOROKA V.
PΑ
     (RALE/) RALETS I.
PΑ
     (BERE/) BEREZIN V.
PΑ
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PI
XX
     WPI; 2000-293111/25.
DR
XX
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
PT
PT
     Parkinson's diseases.
XX
PS
     Example 5; Fig 7; 119pp; English.
XX
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-
CC
     terminal. The invention relates to a compound containing a peptide which
CC
     binds to the NCAM Ig1 domain. The compound binds to NCAM-Ig1/Ig2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
     presenting cells, and is also capable of promoting the proliferation of
CC
CC
     NCAM presenting cells. The present sequence represents a control peptide
CC
     used in the identification of those binding peptides which can be used in
     the compound. The compound may be used in the treatment of normal,
CC
     degenerated or damaged NCAM presenting cells. The compound may in
CC
CC
     particular be used to treat diseases of the central and peripheral
     nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
CC
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
CC
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
CC
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
     quide, and also to stimulate the ability to learn, and to stimulate the
CC
CC
```

Sequence 11 AA;

XX

SQ

memory of a subject

```
45.5%; Score 5; DB 3;
                                                   Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 74;
                                                                 0; Gaps
                                                                              0;
            5; Conservative
                                 0; Mismatches
                                                   0; Indels
            1 ASKKP 5
Qу
              11111
            1 ASKKP 5
Db
RESULT 6
AAW53153
     AAW53153 standard; peptide; 11 AA.
ID
XX
AC
     AAW53153;
XX
DT
     14-JUL-1998 (first entry)
XX
     PTP activity determining peptide substrate 8.
DE
XX
     Protein tyrosine phosphatase; PTP; peptide substrate; phosphorylation.
KW
XX
OS
     Synthetic.
XX
     US5739278-A.
PN
XX
PD
     14-APR-1998.
XX
                    95US-00416035.
PF
     30-MAR-1995;
XX
                    93US-00059949.
PR
     10-MAY-1993;
XX
     (UNIW ) UNIV WASHINGTON.
PΆ
XX
     Fischer EH, Cool DE, Daum G;
PΙ
XX
     WPI; 1998-250491/22.
DR
XX
     New nona-peptide, phosphorylated derivative and related compositions -
PT
     useful for measuring activity of protein tyrosine phosphatases.
PΤ
XX
     Disclosure; Col 13-14; 5pp; English.
PS
XX
     This peptide substrate can be used for the determination of activity of
CC
     protein tyrosine phosphatases (PTP). The peptides with a tyrosine residue
CC
     phosphorylated and related compositions containing the peptides are
CC
     useful for determining the amount or presence of PTP. Determination of
CC
     PTP activity by prior art methods could be affected by a number of
CC
     factors, including the type of enzyme being assayed, the conditions under
CC
     which the assay was performed and the presence of external effectors. The
CC
     peptide of the current invention, when used as a substrate for
CC
     determination purposes is not subject to the limitations of prior art
CC
     methods. The new determination method is highly sensitive, with the assay
CC
     permitting the detection and characterisation of a wide variety of PTP's.
CC
     Due to the increased sensitivity of the methods, PTP's can be detected in
CC
     situations where only limiting amounts of samples, e.g tissue extracts or
CC
     immunoprecipitates, are available
CC
XX
```

```
Sequence 11 AA;
SQ
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.6e+02;
            4; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            1 ASKK 4
Qу
              \Pi\Pi\Pi
            7 ASKK 10
Db
RESULT 7
AAY88556
     AAY88556 standard; peptide; 11 AA.
ID
XX
     AAY88556;
AC
XX
     07-AUG-2000 (first entry)
DT
XX
     NCAM Ig1 binding peptide 119 used as a control peptide.
DE
XX
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
OS
     Synthetic.
XX
PN
     WO200018801-A2.
XX
     06-APR-2000.
PD
XX
                    99WO-DK000500.
ΡF
     23-SEP-1999;
XX
     29-SEP-1998;
                    98DK-00001232.
PR
                    99DK-00000592.
     29-APR-1999;
PR
XX
     (RONN/) RONN L C B.
PA
     (BOCK/) BOCK E.
PA
PΑ
     (HOLM/) HOLM A.
     (OLSE/) OLSEN M.
PΆ
     (OSTE/) OSTERGAARD S.
PΑ
     (JENS/) JENSEN P H.
PA
     (POUL/) POULSEN F M.
PA
     (SORO/) SOROKA V.
PA
     (RALE/) RALETS I.
PA
PA
     (BERE/) BEREZIN V.
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PΙ
XX
     WPI; 2000-293111/25.
DR
```

Compositions that bind neural cell adhesion molecules useful for treating

disorders of the nervous system and muscles e.g. Alzheimer's and

XX

PT

PT PT

Parkinson's diseases.

```
XX
PS
     Example 5; Fig 7; 119pp; English.
XX
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
CC
     NCAM is found in three forms, two of which are transmembrane forms, while
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-
CC
     terminal. The invention relates to a compound containing a peptide which
CC
     binds to the NCAM Iq1 domain. The compound binds to NCAM-Iq1/Iq2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
     presenting cells, and is also capable of promoting the proliferation of
CC
     NCAM presenting cells. The present sequence represents a control peptide
CC
     used in the identification of those binding peptides which can be used in
CC
     the compound. The compound may be used in the treatment of normal,
CC
     degenerated or damaged NCAM presenting cells. The compound may in
CC
     particular be used to treat diseases of the central and peripheral
CC
     nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
CC
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
CC
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
CC
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
     quide, and also to stimulate the ability to learn, and to stimulate the
CC
CC
     memory of a subject
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 8.6e+02;
  Best Local Similarity
                               0; Mismatches
                                                   0; Indels
                                                                     Gaps
                                                                              0;
             4; Conservative
            8 NIKA 11
Qу
              8 NIKA 11
Db
RESULT 8
AAY88555
     AAY88555 standard; peptide; 11 AA.
ID
XX
     AAY88555;
AC
XX
     07-AUG-2000 (first entry)
DT
XX
     NCAM Iq1 binding peptide 118 used as a control peptide.
DE
XX
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
```

OS Synthetic. XX РN WO200018801-A2. XX 06-APR-2000. PDXX 23-SEP-1999; 99WO-DK000500. PFXX 29-SEP-1998; 98DK-00001232. PR 29-APR-1999; 99DK-00000592. PR XX (RONN/) RONN L C B. PΑ (BOCK/) BOCK E. PΑ (HOLM/) HOLM A. PΑ (OLSE/) OLSEN M. PΑ PΑ (OSTE/) OSTERGAARD S. (JENS/) JENSEN P H. PA PA (POUL/) POULSEN F M. (SORO/) SOROKA V. PA (RALE/) RALETS I. PA (BERE/) BEREZIN V. PΑ XX Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH; PΙ Poulsen FM, Soroka V, Ralets I, Berezin V; PIXX WPI; 2000-293111/25. DR XX Compositions that bind neural cell adhesion molecules useful for treating PTPTdisorders of the nervous system and muscles e.g. Alzheimer's and PTParkinson's diseases. XXExample 5; Fig 7; 119pp; English. PS XX CC Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. CC NCAM is found in three forms, two of which are transmembrane forms, while CC the third is attached via a lipid anchor to the cell membrane. All three CC NCAM forms have an extracellular structure consisting five immunoglobulin CC domains (Ig domains). The Ig domains are numbered 1 to 5 from the Nterminal. The invention relates to a compound containing a peptide which CC CC binds to the NCAM Ig1 domain. The compound binds to NCAM-Ig1/Ig2 domains, CCand is capable of stimulating or promoting neurite outgrowth from NCAM CC presenting cells, and is also capable of promoting the proliferation of NCAM presenting cells. The present sequence represents a control peptide CC CC used in the identification of those binding peptides which can be used in CC the compound. The compound may be used in the treatment of normal, degenerated or damaged NCAM presenting cells. The compound may in CC particular be used to treat diseases of the central and peripheral CC CC nervous systems such as post operative nerve damage, traumatic nerve CC damage, impaired myelination of nerve fibres, conditions resulting from a CC stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis, nerve degeneration associated with diabetes mellitus, disorders affecting CC CC the circadian clock or neuro-muscular transmission and schizophrenia. CC Conditions affecting the muscles may also be treated with the compound, CCsuch as conditions associated with impaired function of neuromuscular CC connections (e.g. genetic or traumatic shock or traumatic atrophic muscle CC disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus

XX

```
types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
     quide, and also to stimulate the ability to learn, and to stimulate the
CC
CC
     memory of a subject
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 3; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.6e+02;
                                0; Mismatches
 Matches
                                                    0;
                                                       Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
             4; Conservative
            8 NIKA 11
Qу
              1111
            8 NIKA 11
Db
RESULT 9
ABB74833
     ABB74833 standard; peptide; 11 AA.
XX
AC
     ABB74833:
XX
     18-APR-2002 (first entry)
DT
XX
     Nuclear protein nuclear localisation signal peptide SEQ ID NO:597.
DE
XX
     Fusogenic; nuclear localisation signal; NLS; encapsulation; lipogene;
KW
     liposome; micelle; karyophilic; cytostatic; antitumour; solid tumour;
KW
     peptide-lipid-polynucleotide complex; neoplastic disease; gene therapy;
KW
KW
     breast carcinoma; prostate carcinoma.
XX
OS
     Parechinus angulosus.
XX
ΡN
     WO200193836-A2.
XX
PD
     13-DEC-2001.
XX
PF
     08-JUN-2001; 2001WO-US018657.
XX
     09-JUN-2000; 2000US-0210925P.
PR
XX
PΑ
     (BOUL/) BOULIKAS T.
XX
PΤ
     Boulikas T;
XX
DR
     WPI; 2002-164295/21.
XX
     Encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
PT
PT
     nuclear localization signal/fusogenic peptide conjugates into targeted
PT
     liposome complexes.
XX
     Claim 14; Page 85; 107pp; English.
PS
XX
     The present invention describes a method for producing micelles with
CC
CC
     entrapped therapeutic agents. The method comprises: (1) combining
CC
     negatively charged agent with a cationic lipid in a ratio where 30-90 %
CC
     of the negatively charged atoms are neutralised by positive charges on
```

```
lipid molecules to form an electrostatic micelle complex in 20-80 %
CC
     ethanol; and (2) combining the micelle complex of (a) with fusogenic-
CC
     karyophilic peptide conjugates in a 0.0-0.3 ratio, therefore producing
CC
     micelles with entrapped therapeutic agents. Also described is a method
CC
CC
     for delivering a therapeutic agent in vivo, comprising the administration
     of the micelle. ABB74256 to ABB74858 represent specifically claimed
CC
     nuclear localisation signal (NLS) peptides for use in the method as the
CC
     fusogenic-karyophilic peptides. The micelles produced can have cytostatic
CC
     and antitumour activities. The peptide-lipid-polynucleotide complexes
CC
     produced are useful for inhibiting the progression of neoplastic
CC
     diseases. The invention relates to the field of gene therapy and is
CC
     directed toward methods for producing peptide-lipid-polynucleotide
CC
     complexes suitable for delivery of polynucleotides. The encapsulated
CC
     molecules display therapeutic efficacy in eradicating solid tumours
CC
     including but not limited to breast carcinoma or prostate carcinoma.
CC
     ABB74235 to ABB74255 are used in the exemplification of the present
CC
CC
     invention
XX
     Sequence 11 AA;
SO
                          36.4%; Score 4; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 8.6e+02;
  Best Local Similarity
                                                                              0;
                                0; Mismatches
                                                    0;
                                                        Indels
                                                                  0;
                                                                      Gaps
  Matches
             4; Conservative
            3 KKPK 6
Qу
              +1111
Db
            5 KKPK 8
RESULT 10
AAP50268
     AAP50268 standard; protein; 11 AA.
ΙD
XX
AC
     AAP50268;
XX
DT
     27-AUG-2003
                  (revised)
                  (revised)
DT
     25-MAR-2003
DT
     26-NOV-1991
                  (first entry)
XX
     Yeast alpha-factor secretory leader linked to N-terminal human epidermal
DE
     growth factor.
DE
XX
     Epidermal growth factor; alpha-factor secretory leader; yeast;
KW
     DNA construct; plasmid pY alpha EGF-24.
KW
XX
     Saccharomyces cerevisiae.
OS
OS
     Homo sapiens.
XX
                     Location/Qualifiers
FH
     Key
                     1. .7
FT
     Region
                     /label= alpha-factor secretory leader
FT
FT
     Region
                     /label= human epidermal growth factor N-terminal
FT
XX
PN
     WO8502200-A.
XX
PD
     23-MAY-1985.
```

```
XX
     09-NOV-1984;
                    84WO-US001853.
PF
XX
     14-NOV-1983;
                    83US-00551443.
PR
XX
     (CHIR ) CHIRON CORP.
PΑ
XX
     Barr P, Merryweath JP;
ΡI
XX
DR
     WPI; 1985-134837/22.
DR
     N-PSDB; AAN50323.
XX
     DNA construct encoding human interleukin-2 gene - useful in transformed
PT
     microorganism for expressing the polypeptide.
PT
XX
     Disclosure; Page 15; 31pp; English.
PS
XX
     The peptide is encoded by a DNA which was obtd. by in vitro mutagenesis
CC
     of the DNA of AAN50320, which was a modification of the DNA from clone
CC
     pYEGF-8 (in which the region corresp. to bacterial plasmid pMB9 in
CC
     pJDB219 has been replaced by pBR322 in pC1/1). It comprises the joining
CC
     of the N-terminal of the human epidermal growth factor structural gene to
CC
     the yeast alpha-factor secretory leader sequence, thus providing for
CC
     different processing signals. In the present DNA, the dipeptidyl
CC
     aminopeptidase maturation site (Glu-Ala) has been removed. The resulting
CC
     yeast plasmid is named pY alpha EGF-24. The DNA contains a new KpnI site.
CC
     (Updated on 25-MAR-2003 to correct PA field.) (Updated on 27-AUG-2003 to
CC
CC
     correct OS field.)
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                               0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
             3; Conservative
  Matches
            6 KRN 8
Qу
              \mathbf{I}
            6 KRN 8
Db
RESULT 11
AAR27765
     AAR27765 standard; peptide; 11 AA.
XX
AC
     AAR27765;
XX
DT
     25-MAR-2003
                  (revised)
     03-MAR-1993
                  (first entry)
DT
XX
     BSA-binding disulphide-constrained micropeptide #1.
DE
XX
     Potential binding domain; TN2 phage library; bovine serum albumen.
KW
XX
     Synthetic.
OS
XX
                     Location/Qualifiers
FH
     Key
     Disulfide-bond 4..9
FT
```

```
XX
     WO9215677-A1.
PN
XX
PD
     17-SEP-1992.
XX
                    92WO-US001456.
     27-FEB-1992;
PF
XX
                    91US-00664989.
     01-MAR-1991;
PR
XX
     (PROT-) PROTEIN ENG CORP.
PA
XX
     Ladner RC, Roberts BL, Ley AC, Kent RB;
PI
XX
     WPI; 1992-331723/40.
DR
XX
     Developing binding proteins for target material - using library
PT
     displaying chimeric micro-proteins having intra-chain covalent crosslink.
PT
XX
     Example 1; Page 123; 151pp; English.
PS
XX
     DNA coding for a family of microproteins containing a cystine moiety with
CC
     a disulphide bridge span of 4 amino acids was fused to the gene III of
CC
     M13. The fusion proteins were displayed on the phage surface. The library
CC
     was screened for streptavidin binding micropeptides; the phage were bound
CC
     to bovine serum albumen-coated wells and bound phage were eluted and used
CC
     to infect bacteria. New phage stock was harvested for two further
CC
     enhancement cycles, after which some of the individual phage were
CC
     sequenced and tested. Micropeptide #1 is one of the peptide sequences
CC
     which bound to BSA; there was no consensus motif between the cysteine
CC
     residues of the 8 micropeptides isolated by this procedure. See also
CC
     AAR27766-R27772. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            6 KRN 8
Qу
              111
            6 KRN 8
Db
RESULT 12
AAR30814
     AAR30814 standard; protein; 11 AA.
ID
XX
AC
     AAR30814;
XX
     25-MAR-2003 (revised)
DT
     08-JUN-1993
                  (first entry)
DT
XX
     Humanised antibody light chain CDR 1.
DE
XX
     Complementarity determining region; CDR; rat; monoclonal; antibody;
KW
     YFC51.1.1; CD18; humanised; antigen; leukocyte; lung; sepsis; asthma;
KW
     endotoxic shock; adult respiratory distress syndrome; inflammation;
KW
```

```
KW
     immunotoxin.
XX
OS
     Rattus rattus.
XX
    WO9302191-A1.
PN
XX
     04-FEB-1993.
PD
XX
                   92WO-GB001289.
     15-JUL-1992;
PF
XX
                   91GB-00015364.
     16-JUL-1991;
PR
XX
     (WELL ) WELLCOME FOUND LTD.
PA
XX
     Waldmann H, Sims M, Crowe S;
PI
XX
     WPI; 1993-058788/07.
DR
     N-PSDB; AAQ35171.
DR
XX
     New humanised antibody specific for human CD-18 antigen - inhibits influx
PT
     of leukocytes into the lungs, useful for treating endotoxic shock, adult
PT
     respiratory distress syndrome, asthma, etc.
PT
XX
     Claim 1; Page 33; 59pp; English.
PS
XX
     The sequences given in AAR30814-16 represent the light chain complement-
CC
     arity determining regions (CDRs) of the rat monoclonal antibody YFC51.1.1
CC
     (see also AAR30820-21). YFC51.1.1 is a CD18 antibody. These CDRs can be
CC
     used in a humanised antibody with specificity for CD18 antigen. The
CC
     antibody may be useful in treating leukocyte-mediated conditions, such as
CC
     inhibiting influx of leukocytes into the lung and other organs during
CC
     sepsis, endotoxic shock or adult respiratory distress syndrome. The
CC
     antibodies may also be used to treat asthma and inflammation and may form
CC
     part of an immunotoxin. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+04;
            3; Conservative 0; Mismatches
                                                  0; Indels 0; Gaps
                                                                             0;
  Matches
            1 ASK 3
QУ
              111
            2 ASK 4
RESULT 13
AAR34247
     AAR34247 standard; peptide; 11 AA.
ID
XX
     AAR34247;
AC
XX
DT
     25-MAR-2003 (revised)
     04-AUG-1993 (first entry)
DT
XX
     Mutant HTLV-I residues 88-98, peptide 2L-1.1.
DE
XX
```

```
Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
ΚW
XX
     Synthetic.
os
XX
     WO9306843-A1.
PN
XX
     15-APR-1993.
PD
XX
                    92WO-US008405.
     08-OCT-1992;
PF
XX
     08-OCT-1991;
                    91US-00771553.
PR
XX
     (UYDU-) UNIV DUKE.
PΑ
XX
PΙ
     Palker TJ, Haynes BF;
XX
     WPI; 1993-134125/16.
DR
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
     Example 7; Page 32; 50pp; English.
PS
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CÇ
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
  Matches
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            3 KKP 5
Qу
              \mathbf{H}
Db
            3 KKP 5
RESULT 14
AAR34252
     AAR34252 standard; peptide; 11 AA.
ID
XX
     AAR34252;
AC
XX
DT
     25-MAR-2003 (revised)
DT
     04-AUG-1993 (first entry)
XX
     Mutant HTLV-I residues 88-98, peptide 2L-1.6.
DΕ
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
```

```
XX
     Synthetic.
OS
XX
     WO9306843-A1.
PN
XX
     15-APR-1993.
PD
XX
     08-OCT-1992;
                    92WO-US008405.
ΡF
XX
                    91US-00771553.
     08-OCT-1991;
PR
XX
     (UYDU-) UNIV DUKE.
PΑ
XX
     Palker TJ, Haynes BF;
PI
XX
     WPI; 1993-134125/16.
DR
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
     Example 7; Page 32; 50pp; English.
PS
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                           27.3%; Score 3; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                0; Mismatches
                                                     0; Indels
                                                                       Gaps
                                                                                0;
  Matches
             3; Conservative
            3 KKP 5
Qу
              \parallel 1 \parallel
            3 KKP 5
Db
RESULT 15
AAR34255
     AAR34255 standard; peptide; 11 AA.
ID
XX
AC
     AAR34255;
XX
     25-MAR-2003
                   (revised)
DΤ
DT
     04-AUG-1993
                  (first entry)
XX
     Mutant HTLV-I residues 88-98, peptide 2L-1.9.
DE
XX
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
KW
XX
OS
     Synthetic.
```

```
XX
     WO9306843-A1.
PN
XX
PD
     15-APR-1993.
XX
                    92WO-US008405.
     08-OCT-1992;
PF
XX
     08-OCT-1991;
                    91US-00771553.
PR
XX
     (UYDU-) UNIV DUKE.
PΑ
XX
PI
     Palker TJ, Haynes BF;
XX
     WPI; 1993-134125/16.
DR
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
PS
     Example 7; Page 32; 50pp; English.
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
  Matches
            3 KKP 5
Qу
              111
Db
            3 KKP 5
RESULT 16
AAR34257
     AAR34257 standard; peptide; 11 AA.
ID
XX
     AAR34257;
AC
XX
     25-MAR-2003
DT
                  (revised)
DT
     04-AUG-1993
                  (first entry)
XX
     Mutant HTLV-I residues 88-98, peptide 2L-1.11.
DE
XX
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; qp46; mutant; gag; T cell epitope.
KW
XX
OS
     Synthetic.
XX
PN
     WO9306843-A1.
```

```
XX
PD
     15-APR-1993.
XX
                    92WO-US008405.
PF
     08-OCT-1992;
XX
     08-OCT-1991;
                    91US-00771553.
PR
XX
     (UYDU-) UNIV DUKE.
PA
XX
PI
     Palker TJ, Haynes BF;
XX
     WPI; 1993-134125/16.
DR
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
     Example 7; Page 32; 50pp; English.
PS
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-56.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                   0; Indels
                                                                               0;
             3; Conservative
                               0; Mismatches
                                                                  0;
                                                                      Gaps
            3 KKP 5
Qу
              111
            3 KKP 5
RESULT 17
AAR34256
     AAR34256 standard; peptide; 11 AA.
ID
XX
     AAR34256;
AC
XX
DT
     25-MAR-2003
                  (revised)
     04-AUG-1993
                  (first entry)
DT
XX
     Mutant HTLV-I residues 88-98, peptide 2L-1.10.
DE
XX
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
KW
XX
OS
     Synthetic.
XX
ΡN
     WO9306843-A1.
XX
PD
     15-APR-1993.
```

```
XX
     08-OCT-1992;
                    92WO-US008405.
PF
XX
PR
     08-OCT-1991;
                    91US-00771553.
XX
     (UYDU-) UNIV DUKE.
PA
XX
PΙ
     Palker TJ, Haynes BF;
XX
     WPI; 1993-134125/16.
DR
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
PS
     Example 7; Page 32; 50pp; English.
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                                                  0; Indels
                                                                              0:
             3; Conservative
                                0; Mismatches
  Matches
            3 KKP 5
Qy
              111
            3 KKP 5
Db
RESULT 18
AAR34254
     AAR34254 standard; peptide; 11 AA.
ID
XX
     AAR34254;
AC
XX
DT
     25-MAR-2003 (revised)
     04-AUG-1993 (first entry)
DT
XX
DΕ
     Mutant HTLV-I residues 88-98, peptide 2L-1.8.
XX
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
KW
XX
     Synthetic.
OS
XX
PN
     WO9306843-A1.
XX
PD
     15-APR-1993.
XX
PF
     08-OCT-1992;
                    92WO-US008405.
```

```
XX
     08-OCT-1991;
                    91US-00771553.
PR
XX
PΑ
     (UYDU-) UNIV DUKE.
XX
     Palker TJ, Haynes BF;
PI
XX
     WPI; 1993-134125/16.
DR
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
PS
     Example 7; Page 32; 50pp; English.
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative 0; Mismatches 0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            3 KKP 5
Qy
              \square
Db
            3 KKP 5
RESULT 19
AAR34248
     AAR34248 standard; peptide; 11 AA.
XX
AC
     AAR34248;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-AUG-1993 (first entry)
XX
     Mutant HTLV-I residues 88-98, peptide 2L-1.2.
DE
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
ΚW
XX
os
     Synthetic.
XX
PN
     WO9306843-A1.
XX
     15-APR-1993.
PD
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
PR
     08-OCT-1991;
                    91US-00771553.
```

```
XX
PΑ
     (UYDU-) UNIV DUKE.
XX
PI
     Palker TJ, Haynes BF;
XX
     WPI; 1993-134125/16.
DR
XX
     Antiqenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
PS
     Example 7; Page 32; 50pp; English.
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                              0;
             3; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
            3 KKP 5
Qу
              111
Db
            3 KKP 5
RESULT 20
AAR34253
     AAR34253 standard; peptide; 11 AA.
ID
XX
AC
     AAR34253;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-AUG-1993
                  (first entry)
XX
DE
     Mutant HTLV-I residues 88-98, peptide 2L-1.7.
XX
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
XX
OS
     Synthetic.
XX
PN
     WO9306843-A1.
XX
PD
     15-APR-1993.
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
PR
     08-OCT-1991;
                    91US-00771553.
XX
PA
     (UYDU-) UNIV DUKE.
```

```
XX
     Palker TJ, Haynes BF;
PΙ
XX
DR
     WPI; 1993-134125/16.
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PΤ
XX
     Example 7; Page 32; 50pp; English.
PS
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                               0;
                                                                  0; Gaps
             3; Conservative 0; Mismatches
                                                   0; Indels
            3 KKP 5
Qу
              111
Db
            3 KKP 5
RESULT 21
AAR34246
     AAR34246 standard; peptide; 11 AA.
ID
XX
AC
     AAR34246;
XX
     25-MAR-2003
                  (revised)
DT
DT
     04-AUG-1993
                  (first entry)
XX
     HTLV-I residues 88-98, peptide 2L-1.
DE
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
KW
XX
     Synthetic.
OS
XX
PN
     WO9306843-A1.
XX
     15-APR-1993.
PD
XX
     08-OCT-1992;
                    92WO-US008405.
PF
XX
     08-OCT-1991;
                    91US-00771553.
PR
XX
     (UYDU-) UNIV DUKE.
PA
XX
PΙ
     Palker TJ, Haynes BF;
```

```
XX
DR
     WPI; 1993-134125/16.
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PТ
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
PS
     Example 7; Page 32; 50pp; English.
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
           3; Conservative
                              0; Mismatches
                                                   0;
                                                       Indels
  Matches
            3 KKP 5
Qу
              3 KKP 5
Db
RESULT 22
AAR49995
     AAR49995 standard; protein; 11 AA.
ID
XX
AC
     AAR49995;
XX
DT
     25-MAR-2003 (revised)
DT
     23-SEP-1994 (first entry)
XX
     Mouse OSF-5 antigenic peptide 116-126.
DE
XX
     Mouse OSF-5; bone-related carboxypeptidase-like protein; growth factor;
KW
     adhesion molecule; osteogenesis; bone induction;
KW
ΚW
     bone metabolism disorder; osteoporosis; osteopetrosis; Paget's disease;
     antigen; immunogen; detection.
KW
XX
     Synthetic.
OS
XX
PN
     EP588118-A2.
XX
     23-MAR-1994.
PD
XX
                    93EP-00113604.
PF
     25-AUG-1993;
XX
                    92JP-00230029.
PR
     28-AUG-1992;
                    92JP-00324033.
PR
     03-DEC-1992;
XX
PΑ
     (FARH ) HOECHST JAPAN LTD.
PΑ
     (HMRI ) HOECHST MARION ROUSSELL LTD.
```

```
XX
     Kawai S, Takeshita S, Okazaki M, Amann E;
PI
XX
     WPI; 1994-093794/12.
DR
XX
     New bone-related carboxy:peptidase OSF-5 - used to obtain prods. for the
PT
     diagnosis and treatment of bone metabolic diseases, e.g. osteoporosis, or
PT
PT
     Paget's disease.
XX
PS
     Example 5; Page 6; 26pp; English.
XX
     OSF-5 is a bone-specific carboxypeptidase which acts as an adhesion
CC
     molecule or growth factor; it takes part in osteogenesis at the site of
CC
     bone induction. OSF-5 can be used to treat bone metabolic diseases, e.g.
CC
     osteoporosis, Paget's disease, osteomalacia, hyperostosis or
CC
     osteopetrosis. To prepare anti-OSF-5 antibodies, five peptides (see
CC
     AAR49995-R49999) corresponding to regions of the full-length mouse OSF-5
CC
     sequence (AAR49994) were synthesised. Antisera raised against the
CC
     peptides could be used to immunohistochemically search for the presence
CC
     of OSF-5 in systemic slices from newborn mice and to detect expression of
CC
     OSF-5 in E.coli, yeast and animal cells. (Updated on 25-MAR-2003 to
CC
     correct PN field.) (Updated on 25-MAR-2003 to correct PA field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
  Matches
            4 KPK 6
Qу
              \mathbf{I}
            1 KPK 3
Db
RESULT 23
AAR67121
     AAR67121 standard; peptide; 11 AA.
ID
XX
AC
     AAR67121;
XX
                  (revised)
     25-MAR-2003
DT
     30-JUN-1995
                  (first entry)
DT
XX
     Factor V derived (AC-5A1) peptide, contq. proline brackets.
DE
XX
     blood protein inhibitor; antagonist; thrombin; prothrombin; mimic;
KW
     interaction site; constrained conformation; inhibitor.
KW
XX
OS
     Synthetic.
XX
PN
     WO9425482-A1.
XX
PD
     10-NOV-1994.
XX
PF
     21-APR-1994;
                    94WO-US004294.
XX
                    93US-00051741.
PR
     23-APR-1993;
```

```
29-OCT-1993;
                    93US-00143364.
PR
XX
     (EVAN/) EVANS H J.
PΑ
     (KINI/) KINI R M.
PΑ
XX
PΙ
     Evans HJ,
               Kini RM;
XX
     WPI; 1994-358186/44.
DR
XX
     Peptide homologue or analogue with constrained conformation - has proline
PT
     residues flanking the interaction site to impart greater, or more stable,
PΤ
PT
     biological activity.
XX
     Example 3; Page 39; 57pp; English.
PS
XX
     AAR67121-39 are blood protein inhibitors and antagonists. The peptides
CC
     are deriv. from naturally occuring polypeptides that contain proline or
CC
     proline/cysteine brackets. These peptides contain one or more interaction
CC
     sites of interest. AAR67121-22 are deriv. from factor V. The dose is 1-2
CC
     millimoles. The peptides interfere with the generation of thrombin from
CC
     prothrombin. The data collected demonstrates that interaction sites
CC
     possess activity when present in a polypeptide that differs from the
CC
     native form. Inclusion of conformation-constraining moieties can have
CC
     desirable effects on an interaction site. (Also see AAR67011-120 and
CC
     AAR67140-52 for analogues of other biologically active peptides contg. an
CC
     interaction site flanked by conformation constraining gps., eg. RGD
CC
     peptides.) (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                      Indels
                                                                  0; Gaps
                                                                               0;
            3; Conservative
                                 0; Mismatches
                                                    0;
            1 ASK 3
Qу
              \mathbf{I}
            4 ASK 6
Db
RESULT 24
AAR70367
     AAR70367 standard; peptide; 11 AA.
ID
XX
AC
     AAR70367;
XX
     25-MAR-2003
                  (revised)
DT
DT
     25-MAY-1995
                  (first entry)
XX
     Borrelia OspC antigen epitope.
DE
XX
     OspC antigen; vaccine; Lyme disease; borreliosis; immunogen;
KW
     serovar typing; restriction fragment length polymorphism; RFLP.
KW
XX
OS
     Borrelia burgdorferi.
XX
PN
     WO9425596-A2.
XX
```

```
10-NOV-1994.
PD
XX
                    94WO-EP001365.
PF
     29-APR-1994;
XX
PR
     29-APR-1993;
                    93US-00053863.
XX
     (IMMO ) IMMUNO AG.
PA
XX
     Livey I, Crowe B, Dorner F;
PΙ
XX
     WPI; 1994-358273/44.
DR
XX
     Immunogenic composition comprising OspC antigens - for the treatment of
PT
     Lyme borreliosis in different, specific geographical areas.
PT
XX
     Claim 19; Page 57; 115pp; English.
PS
XX
     A vaccine for Lyme disease includes selected OspC antigen formulations
CC
     based on defined OspC families resolved by serovar typing and RFLP typing
CC
     of strains of worldwide origin. The antigens comprise 1 or more of the
CC
     epitopes given in AAR70360-69 or their variants or mimetics. (Updated on
CC
     25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                               0;
             3; Conservative
                                                                  0; Gaps
            3 KKP 5
Qу
              111
            9 KKP 11
RESULT 25
AAR52710
     AAR52710 standard; protein; 11 AA.
XX
AC
     AAR52710;
XX
DT
     25-MAR-2003
                  (revised)
DT
     06-JAN-1995
                  (first entry)
XX
     Enkephalinase peptide fragment KC31.
DE
XX
KW
     Human; enkephalinase; neutral endopeptidase; kidney; intestine; kinin;
     kidney brush border neutral proteinase; pituitary; brain; lymph nodes;
KW
     neutrophils; enkephalins; tachykinins.
KW
XX
     Synthetic.
OS
XX
                     Location/Qualifiers
FH
     Misc-difference 1
FT
                     /note= "Unidentified amino acid"
FT
XX
ΡN
     EP596355-A1.
XX
```

```
11-MAY-1994.
PD
XX
                    93EP-00117230.
PF
     23-DEC-1987;
XX
     24-DEC-1986;
                    86US-00946566.
PR
     12-JAN-1987;
                    87US-00002478.
PR
XX
     (GETH ) GENENTECH INC.
PA
XX
     Malfroy-Camine B, Schofield PR;
PI
XX
     WPI; 1994-152785/19.
DR
XX
     Method for assay of enkephalinase using dansylated peptide(s) - for
PT
     identification of recombinant enkephalinase.
PT
XX
     Example 1; Page 13; 61pp; English.
PS
XX
     The sequences given in AAR52709-14 represents peptide fragments of rat
CC
     enkephalinase derived from rat kidney. These peptides were generated by
CC
     Lysine-C proteinase digestion of enkephalinase and HPLC purification.
CC
     Enkephalinase is a neutral endopeptidase or kidney brush border neutral
CC
     proteinase. It has been isolated from the kidney, intestine, pituitary,
CC
     brain and lymph nodes, and has been detected in many peripheral organs
CC
     and in human neutrophils. The distribution of enkephalinase in the brain
CC
     closely parallels that of the enkephalins. Mammalian enkephalinase may be
CC
     used in the treatment of various pathological disorders associated with
CC
     various endogenous peptides, eg. tachykinins and kinins. (Updated on 25-
CC
     MAR-2003 to correct PN field.) (Updated on 25-MAR-2003 to correct PF
CC
CC
     field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                                0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
  Matches
             3; Conservative
            4 KPK 6
Qу
              \mathbf{I}
Db
            9 KPK 11
RESULT 26
AAW06227
     AAW06227 standard; peptide; 11 AA.
XX
AC
     AAW06227;
XX
DT
     20-JAN-1997 (first entry)
XX
     LHRH antagonist peptide #9.
DE
XX
     Leuteinising hormone-releasing hormone; LHRH; antagonist; hirsutism;
KW
     acyl functional group; gonadotrophin; androgen; contraception;
KW
     benign prostatic hyperplasia; breast cancer; prostate cancer;
KW
KW
     ovarian cancer; cryptorchidism; gastric motility disorder; dysmenorrhoea;
KW
     endometriosis; puberty.
```

```
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Modified-site
FT
                     /note= "N-(R,S)-tetrahydrofur-2-oyl-Gly"
FT
FT
     Modified-site
                     /label= OTHER
FT
                     /note= "D-3-(naphth-2-yl)Ala"
FT
     Modified-site
FT
                     /note= "D-3-(4-chlorophenyl)Ala"
FT
     Modified-site
FT
                     /label= OTHER
FT
                     /note= "D-3-(pyrid-3-yl)Ala"
FT
FT
     Modified-site
                     /note= "Lys(3-amino-1,2,4-triazol-5-yl)"
FT
     Modified-site
FT
                     /note= "Lys(3-amino-1,2,4-triazol-5-yl), D-form residue"
FT
FT
     Modified-site
                     /note= "Lys(N-epsilon-isopropyl)"
FT
     Modified-site
FT
                     /label= MeGly
FT
                     /note= "Amidated C-terminal"
FT
XX
     WO9504541-A1.
ΡN
XX
PD
     16-FEB-1995.
XX
                    94WO-US008678.
PF
     29-JUL-1994;
XX
PR
     06-AUG-1993;
                    93US-00103022.
PR
     27-JUL-1994;
                    94US-00279677.
XX
     (ABBO ) ABBOTT LAB.
PΑ
XX
     Haviv F, Fitzpatrick TD, Swenson RE, Nichols CJ, Mort NA;
PI
XX
DR
     WPI; 1995-090680/12.
XX
PT
     New N-terminal acylated deca- and undeca: peptide cpds. - useful as potent
PT
     antagonists of LHRH, e.g. for treating benign prostatic hyperplasia,
     tumours, hirsutism, gastric motility disorders, etc.
PT
XX
PS
     Claim 4; Page 86-87; 92pp; English.
XX
     The sequences given in AAW06219-31 represent synthetic peptides which act
CC
CC
     as leuteinising hormone-releasing hormone (LHRH) antagonists. These
     peptides represent analogues of LHRH which have been modified at the N-
CC
CC
     terminus by addition of either an acyl functional group or an acyl
     functional group together with an additional aminoacyl residue. The LHRH
CC
     antagonists are useful for suppressing levels of gonadotrophins and
CC
     androgens in mammals. They may be used e.g. in treatment of benign
CC
CC
     prostatic hyperplasia, breast, prostate or ovary tumours, cryptorchidism,
     hirsutism, gastric motility disorders, dysmenorrhoea or endometriosis, to
CC
CC
     delay puberty, or in contraception
XX
SQ
     Sequence 11 AA;
```

```
27.3%; Score 3; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                                0;
                               0; Mismatches
             3; Conservative
                                                     0; Indels
                                                                        Gaps
            2 SKK 4
Qу
              \Pi\Pi
            5 SKK 7
Db
RESULT 27
AAW06228
     AAW06228 standard; peptide; 11 AA.
ID
XX
     AAW06228;
AC
XX
     20-JAN-1997 (first entry)
DT
XX
     LHRH antagonist peptide #10.
DE
XX
     Leuteinising hormone-releasing hormone; LHRH; antagonist; hirsutism;
KW
     acyl functional group; gonadotrophin; androgen; contraception;
KW
     benign prostatic hyperplasia; breast cancer; prostate cancer;
KW
     ovarian cancer; cryptorchidism; gastric motility disorder; dysmenorrhoea;
KW
     endometriosis; puberty.
KW
XX
os
     Synthetic.
XX
                      Location/Qualifiers
FH
     Key
FT
     Modified-site
                      /note= "N-(R,S)-tetrahydrofur-2-oyl-Gly"
FT
FT
     Modified-site
                      /label= OTHER
FT
                      /note= "D-3-(naphth-2-yl)Ala"
FT
     Modified-site
FT
                      3
                      /note= "D-3-(4-chlorophenyl)Ala"
FT
     Modified-site
FT
                      /label= OTHER
\mathbf{FT}
                      /note= "D-3-(pyrid-3-yl)Ala"
FT
FT
     Modified-site
                      /note= "Lys(3-amino-1,2,4-triazol-5-yl) or Lys(nic)"
FT
     Modified-site
FT
                      /note= "Lys(3-amino-1,2,4-triazol-5-yl) or Lys(nic), D-
FT
                      form residue"
FT
     Modified-site
FT
                      /note= "Lys(N-epsilon-isopropyl)"
FT
     Modified-site
FT
                      /note= "DAla-NH2"
FT
XX
PN
     WO9504541-A1.
XX
PD
     16-FEB-1995.
XX
                     94WO-US008678.
PF
     29-JUL-1994;
XX
     06-AUG-1993;
                     93US-00103022.
PR
     27-JUL-1994;
                     94US-00279677.
PR
```

```
XX
     (ABBO ) ABBOTT LAB.
PA
XX
     Haviv F, Fitzpatrick TD, Swenson RE, Nichols CJ, Mort NA;
PΙ
XX
     WPI; 1995-090680/12.
DR
XX
     New N-terminal acylated deca- and undeca:peptide cpds. - useful as potent
PT
     antagonists of LHRH, e.g. for treating benign prostatic hyperplasia,
PT
     tumours, hirsutism, gastric motility disorders, etc.
PT
XX
     Claim 4; Page 86-87; 92pp; English.
PS
XX
     The sequences given in AAW06219-31 represent synthetic peptides which act
CC
     as leuteinising hormone-releasing hormone (LHRH) antagonists. These
CC
     peptides represent analogues of LHRH which have been modified at the N-
CC
     terminus by addition of either an acyl functional group or an acyl
CC
     functional group together with an additional aminoacyl residue. The LHRH
CC
     antagonists are useful for suppressing levels of gonadotrophins and
CC
     androgens in mammals. They may be used e.g. in treatment of benign
CC
     prostatic hyperplasia, breast, prostate or ovary tumours, cryptorchidism,
CC
     hirsutism, qastric motility disorders, dysmenorrhoea or endometriosis, to
CC
CC
     delay puberty, or in contraception
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3;
                                             DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                      Gaps
                                                                               0;
             3; Conservative
                                0; Mismatches
                                                    0; Indels
  Matches
            2 SKK 4
Qy
              111
            5 SKK 7
Db
RESULT 28
AAR68911
     AAR68911 standard; peptide; 11 AA.
ID
XX
AC
     AAR68911;
XX
                   (revised)
DT
     25-MAR-2003
                  (first entry)
DT
     06-AUG-1995
XX
     Factor-VII-derived peptide fragment FVII-1.
DE
XX
     Factor-VII; blood-clotting factor; thrombosis; angina;
KW
     cerebrovascular disease; pulmonary embolism; heart disease.
KW
XX
OS
     Synthetic.
XX
PN
     W09500541-A1.
XX
PD
     05-JAN-1995.
XX
                    94WO-GB001315.
PF
     17-JUN-1994;
XX
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93GB-00012601.
PR
     18-JUN-1993;
                    94GB-00009335.
PR
     10-MAY-1994;
XX
     (HAFS-) HAFSLUND NYCOMED AS.
PΑ
     (HOLM/) HOLMES M J.
PΑ
XX
     Stephens RW, Orning L, Sakariassen KS;
PΙ
XX
     WPI; 1995-052003/07.
DR
XX
     Factor VII-derived peptide compounds - useful for preventing/inhibiting
PT
     binding of tissue factor to factor VII.
PT
XX
     Disclosure; Page 20; 61pp; English.
PS
XX
     This peptide fragment is useful for preparing pharmaceutical compositions
CC
     for prevention or inhibition of Factor-VII binding to tissue factor. It
CC
     is useful for treating or preventing blood clotting disorders in humans
CC
     and animals, e.g. thrombosis, angina, cerebrovascular disease or
CC
     pulmonary embolism. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                0; Mismatches
                                                                              0;
             3; Conservative
                                                  0; Indels
                                                                  0;
                                                                      Gaps
  Matches
            6 KRN 8
Qу
              8 KRN 10
Db
RESULT 29
AAR67858
     AAR67858 standard; peptide; 11 AA.
XX
AC
     AAR67858;
XX
DT
     25-MAR-2003
                  (revised)
DT
     07-SEP-1995
                  (first entry)
XX
     FVII/TF multi-protein complex inhibition test peptide FVII-1.
DE
XX
     Factor VII; Factor 7; blood clotting factor; multi-protein complex;
     human tissue factor; FVII/TF; assay.
KW
XX
OS
     Synthetic.
XX
PN
     WO9500847-A1.
XX
PD
     05-JAN-1995.
XX
                    94WO-GB001314.
PF
     17-JUN-1994;
XX
                    93GB-00012638.
PR
     18-JUN-1993;
XX
     (HAFS-) HAFSLUND NYCOMED AS.
PA
```

```
(HOLM/) HOLMES M J.
PA
XX
PI
     Stephens R, Oerning L, Sakariassen K;
XX
DR
     WPI; 1995-052226/07.
XX
     Immunoassay for multi-protein complexes - used to detect malfunction in
PT
     formation of complexes in an individual, e.g. due to genetic or
PT
     physiological disorders.
PT
XX
PS
     Example 2; Page 8; 19pp; English.
XX
     Synthetic peptides (AAR67858-R67865) were individually assayed as test
CC
     substances to ascertain their effect on the formation of the blood-
CC
     clotting factor VII/tissue factor multi-protein complex. Of the peptides
CC
     tested, the most inhibition was obtained with cyclic peptides
CC
     representing the ring structures present in the FVII growth factor
CC
     domains (i.e. AAR67861, AAR67864 and AAR67863). Peptide AAR67858, a
CC
     linear peptide corresp. to residues 136-146 from a region close to the
CC
CC
     site of cleavage which activates FVII also had good inhibitory activity.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                   0; Indels
                                 0; Mismatches
                                                                 0;
                                                                     Gaps
                                                                              0;
  Matches
             3; Conservative
            6 KRN 8
Qу
              8 KRN 10
Db
RESULT 30
AAW21329
     AAW21329 standard; peptide; 11 AA.
XX
AC
     AAW21329;
XX
DT
     29-JUL-1997 (first entry)
XX
DE
     Glucagon precursor derived signal oligopeptide #34.
XX
KW
     Hydrophilic; signal oligopeptide; hydrophilicity maxima; vaccine; SIV;
KW
     competitive inhibitor; feedback regulator; synthesis; gastrin precursor;
KW
     charge; polarity; farnesyl synthetase; plasminogen activator inhibitor 1;
KW
     hydroxymethylqlutaryl coenzyme A reductase; glucagon precursor; rhesus;
     qonadoliberin precursor; plasminogen activator inhibitor 2; prorenin;
KW
     Alzheimer amyloid A4; corticotropin releasing factor binding protein;
KW
KW
     apolipoprotein E; herpes virus 1 glycoprotein B; HSV1; human; OMVVS;
KW
     herpes virus 2 glycoprotein B; HSV2; collagenase; apolipoprotein A;
     Treponema pallidum membrane protein; TMPA; islet amyloid polypeptide;
ΚW
     fibroblast MMP1; schistosoma elastase precursor; schistosomin;
KW
KW
     hepatitis delta antigen; rev protein; HIV; VILV; angiotensinogen.
XX
OS
     Homo sapiens.
XX
```

```
WO9519568-A1.
PN
XX
     20-JUL-1995.
PD
XX
PF
     12-JAN-1995;
                    95WO-US000575.
XX
     14-JAN-1994;
                    94US-00182248.
PR
XX
     (RATH/) RATH M.
PA
XX
PΙ
     Rath M;
XX
     WPI; 1995-263953/34.
DR
XX
     Identifying signal oligopeptide(s) in protein sequence(s) - shown as
PT
     regions of max. hydrophilicity, used in modulating communication between
PT
PT
     protein(s).
XX
     Claim 5; Page 44; 88pp; English.
PS
XX
     The sequences given in AAW21201-560 represent hydrophilic signal oligo-
CC
     peptides. These signal oligopeptides are localised on the surface of the
CC
     protein and are represented by the hydrophilicity maxima of the protein.
CC
     These peptides are enriched in charged amino acids arranged with neutral
CC
     spacer amino acids. The specific signal character of these oligopeptides
CC
     is determined by a characteristic combination of conformation and charge
CC
     within the signal sequence. These oligopeptides may be used as vaccines
CC
     in the treatment of human disease, as competitive inhibitors to prevent
CC
     or reduce the metabolic action or interaction of a selected protein by
CC
     blocking its specific signal sequences, or as therapeutic agents to
CC
     function as feedback regulators to reduce synthesis rate of a selected
CC
     protein. These peptides may be modified by omitting one or more amino
CC
CC
     acids at the N- and/or C-terminal, by substituting one or more amino
CC
     acids without consideration of charge and polarity, by substituting one
CC
     or more amino acids with amino acid residues with similar charge and/or
CC
     polarity, by omitting one or more amino acids or a combination of these
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
  Matches
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            6 KRN 8
Qу
              | | |
Db
            2 KRN 4
RESULT 31
AAW21466
     AAW21466 standard; peptide; 11 AA.
ID
XX
     AAW21466;
AC
XX
DT
     29-JUL-1997 (first entry)
XX
DΕ
     Islet amyloid precursor derived signal oligopeptide #4.
```

XX Hydrophilic; signal oligopeptide; hydrophilicity maxima; vaccine; SIV; KW competitive inhibitor; feedback regulator; synthesis; gastrin precursor; KW charge; polarity; farnesyl synthetase; plasminogen activator inhibitor 1; ΚW KW hydroxymethylglutaryl coenzyme A reductase; glucagon precursor; rhesus; gonadoliberin precursor; plasminogen activator inhibitor 2; prorenin; KW Alzheimer amyloid A4; corticotropin releasing factor binding protein; KW apolipoprotein E; herpes virus 1 glycoprotein B; HSV1; human; OMVVS; KW herpes virus 2 glycoprotein B; HSV2; collagenase; apolipoprotein A; KW Treponema pallidum membrane protein; TMPA; islet amyloid polypeptide; KW fibroblast MMP1; schistosoma elastase precursor; schistosomin; KW hepatitis delta antigen; rev protein; HIV; VILV; angiotensinogen. KW XX OS Homo sapiens. XX ΡN WO9519568-A1. XX 20-JUL-1995. PDXX PF 12-JAN-1995: 95WO-US000575. XX PR 14-JAN-1994; 94US-00182248. XX (RATH/) RATH M. PA XX PΙ Rath M; XX DR WPI; 1995-263953/34. XX Identifying signal oligopeptide(s) in protein sequence(s) - shown as PTregions of max. hydrophilicity, used in modulating communication between PTPTprotein(s). XX PS Claim 5; Page 67; 88pp; English. XX CC The sequences given in AAW21201-560 represent hydrophilic signal oligo-CC peptides. These signal oligopeptides are localised on the surface of the protein and are represented by the hydrophilicity maxima of the protein. CC CC These peptides are enriched in charged amino acids arranged with neutral spacer amino acids. The specific signal character of these oligopeptides CC CC is determined by a characteristic combination of conformation and charge CC within the signal sequence. These oligopeptides may be used as vaccines CC in the treatment of human disease, as competitive inhibitors to prevent CC or reduce the metabolic action or interaction of a selected protein by CC blocking its specific signal sequences, or as therapeutic agents to CC function as feedback regulators to reduce synthesis rate of a selected CC protein. These peptides may be modified by omitting one or more amino CC acids at the N- and/or C-terminal, by substituting one or more amino CC acids without consideration of charge and polarity, by substituting one or more amino acids with amino acid residues with similar charge and/or CC CC polarity, by omitting one or more amino acids or a combination of these XX Sequence 11 AA; SQ 27.3%; Score 3; DB 2; Length 11; Query Match Best Local Similarity 100.0%; Pred. No. 1e+04; Matches 3; Conservative 0; Mismatches 0; Indels 0;

```
QУ
              111
            1 KRN 3
Db
RESULT 32
AAW21467
    AAW21467 standard; peptide; 11 AA.
ID
XX
AC
     AAW21467;
XX
DT
     29-JUL-1997 (first entry)
XX
     Islet amyloid precursor derived signal oligopeptide #5.
DE
XX
     Hydrophilic; signal oligopeptide; hydrophilicity maxima; vaccine; SIV;
KW
     competitive inhibitor; feedback regulator; synthesis; gastrin precursor;
KW
     charge; polarity; farnesyl synthetase; plasminogen activator inhibitor 1;
KW
     hydroxymethylglutaryl coenzyme A reductase; glucagon precursor; rhesus;
KW
     gonadoliberin precursor; plasminogen activator inhibitor 2; prorenin;
KW
     Alzheimer amyloid A4; corticotropin releasing factor binding protein;
KW
     apolipoprotein E; herpes virus 1 glycoprotein B; HSV1; human; OMVVS;
KW
     herpes virus 2 glycoprotein B; HSV2; collagenase; apolipoprotein A;
KW
     Treponema pallidum membrane protein; TMPA; islet amyloid polypeptide;
KW
     fibroblast MMP1; schistosoma elastase precursor; schistosomin;
KW
     hepatitis delta antigen; rev protein; HIV; VILV; angiotensinogen.
KW
XX
OS
     Homo sapiens.
XX
     WO9519568-A1.
PN
XX
     20-JUL-1995.
PD
XX
     12-JAN-1995;
                    95WO-US000575.
PF
XX
     14-JAN-1994;
                    94US-00182248.
PR
XX
     (RATH/) RATH M.
PA
XX
PI
     Rath M;
XX
DR
     WPI; 1995-263953/34.
XX
     Identifying signal oligopeptide(s) in protein sequence(s) - shown as
PT
PT
     regions of max. hydrophilicity, used in modulating communication between
PT
     protein(s).
XX
PS
     Claim 5; Page 67; 88pp; English.
XX
     The sequences given in AAW21201-560 represent hydrophilic signal oligo-
CC
     peptides. These signal oligopeptides are localised on the surface of the
CC
     protein and are represented by the hydrophilicity maxima of the protein.
CC
     These peptides are enriched in charged amino acids arranged with neutral
CC
CC
     spacer amino acids. The specific signal character of these oligopeptides
CC
     is determined by a characteristic combination of conformation and charge
     within the signal sequence. These oligopeptides may be used as vaccines
CC
```

6 KRN 8

```
or reduce the metabolic action or interaction of a selected protein by
CC
     blocking its specific signal sequences, or as therapeutic agents to
CC
     function as feedback regulators to reduce synthesis rate of a selected
CC
     protein. These peptides may be modified by omitting one or more amino
CC
     acids at the N- and/or C-terminal, by substituting one or more amino
CC
     acids without consideration of charge and polarity, by substituting one
CC
     or more amino acids with amino acid residues with similar charge and/or
CC
     polarity, by omitting one or more amino acids or a combination of these
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+04;
             3; Conservative
                              0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
  Matches
            6 KRN 8
Qy
              -111
            1 KRN 3
Db
RESULT 33
AAR84537
     AAR84537 standard; peptide; 11 AA.
XX
AC
     AAR84537;
XX
DT
     06-JUN-1996 (first entry)
XX
     Hepatitis C virus core antigen (amino acids 8-18).
DE
XX
     Tailor-made; antigen/antibody specificity exchanger; HIV infection;
KW
     heavy chain; complementarity determining region; CDR;
KW
     human immunodeficiency virus; variable loop 3 domain; redirecting;
KW
     epitope; HCV; hepatitis C virus; core protein.
KW
XX
OS
     Synthetic.
XX
     WO9529938-A1.
PN
XX
     09-NOV-1995.
PD
XX
                    95WO-SE000468.
     27-APR-1995;
PF
XX
                    94SE-00001460.
PR
     28-APR-1994;
XX
     (FERR ) FERRING AB.
PA
XX
PΙ
     Saellberg M;
XX
     WPI; 1995-393040/50.
DR
XX
     Antigen-antibody specificity exchanger - used in a method to redirect a
PT
     patients antibodies against polio: virus to fight HIV infection in the
PT
PT
     patient.
XX
PS
     Claim 7; Page 35; 38pp; English.
```

in the treatment of human disease, as competitive inhibitors to prevent

CC

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XX
     An antigen/antibody specificity exchanger comprises an antibody- derived
CC
     amino acid sequence (A) which specifically binds to a particular antigen,
CC
     linked to an amino acid sequence (C) to which a particular antibody
CC
CC
     binds. The present sequence is a preferred example of a type (C) sequence
     ; it is an epitope from hepatitis C virus. Preferred type (A) sequences
CC
     are complementarity determining regions from e.g. anti-HIV-1 antibodies.
CC
     The specificity exchanger can redirect antibodies already present in a
CC
     patient and raised against a particular antigen, to fight a different
CC
     antigen. For example, it was shown that anti-poliovirus antibodies could
CC
CC
     be redirected to fight HIV
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
             3; Conservative
                                                                               0;
  Matches
            6 KRN 8
Qу
              \mathbf{H}
            5 KRN 7
Db
RESULT 34
AAR67274
     AAR67274 standard; peptide; 11 AA.
XX
AC
     AAR67274;
XX
DT
     25-MAR-2003
                  (revised)
DT
     01-AUG-1995
                  (first entry)
XX
     Synthetic human/bovine FGF acidic peptide, 1-11.
DE
XX
     Cell growth factor; viscoelastic solution; fibroblastic growth factor;
KW
     FGF; epidermal growth factor; EGF; buffered solution; lubrication;
KW
     carboxypropyl methylcellulose; cellulose gum; dextran; dextran sulphate;
KW
ΚW
     chondroitin sulphate; sodium hyaluronate; osmolarity; mitogenic;
     wound healing; cell protection; cell coating; surgery; tissue space;
KW
     hydroxypropyl methylcellulose; manipulation.
KW
XX
OS
     Synthetic.
XX
PN
     US5366964-A.
XX
PD
     22-NOV-1994.
XX
PF
     13-NOV-1989;
                    89US-00434305.
XX
PR
     15-DEC-1988;
                    88US-00284533.
XX
PA
     (LIND/) LINDSTROM R L.
     (SKEL/) SKELNIK D.
PA
XX
ΡI
     Skelnik D, Lindstrom RL;
XX
DR
     WPI; 1995-005865/01.
```

```
XX
PT
     Viscoelastic soln. contq. hydroxypropyl methylcellulose, sodium
     hyaluronate, chondroitin sulphate and growth factors - used as a surgical
PT
     soln. to promote wound healing, e.g. of corneal cells.
PT
XX
ΡS
     Disclosure; Col 4; 8pp; English.
XX
     The sequences given in AAR67273-76 are cell growth factors which may be
CC
     used in the viscoelastic solution of the invention. The peptides are
CC
     derived from fibroblastic growth factor (FGF) and epidermal growth factor
CĊ
     (EGF). The viscoelastic solution also comprises a buffered solution which
CC
     is pref. a buffered balanced salt solution, at least 1 of hydroxy- or
CC
     carboxypropyl methylcellulose, a cellulose gum, dextran or dextran
CC
     sulphate, chondroitin sulphate, and sodium hyaluronate. It has a pH of 6-
CC
     8 and an osmolarity of 200-400 mOSmol/1. The growth factors are mitogenic
CC
     in vitro for a wide range of tissues and the viscoelastic soln. may be
CC
     used as a surgical soln. which is in direct contact with cells undergoing
CC
     wound healing. It also provides a cell protection and cell coating during
CC
     surgery. The soln. provides maintenance of tissue space, hydroxypropyl
CC
     methylcellulose and chondroitin sulphate lubricate the tissue, while
CC
     sodium hyaluronate provides tissue manipulation. (Updated on 25-MAR-2003
CC
CC
     to correct PF field.)
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            3 KKP 5
Qу
              | | |
Db
            9 KKP 11
RESULT 35
AAR99265
     AAR99265 standard; peptide; 11 AA.
XX
AC
     AAR99265;
XX
DT
     07-NOV-1996 (first entry)
XX
DE
     Myosin light chain-1 amino acids 34-44 used for MAb 39-15 prodn.
XX
KW
     Myosin light chain; ventricular; heart; cardiac; angina; infarction; MAb;
KW
     monoclonal antibody; aa; amino acid; branched; polylysine core;
KW
     octameric; antigenic; hybridoma.
XX
OS
     Synthetic.
XX
     W09610078-A1.
PN
XX
     04-APR-1996.
PD
XX
PF
     28-SEP-1995;
                    95WO-IB000808.
XX
PR
     28-SEP-1994;
                    94US-00314202.
```

```
XX
     (SPEC-) SPECTRAL DIAGNOSTICS INC.
PΑ
XX
PΙ
     Takahashi M, Jackowski G;
XX
     WPI; 1996-200917/20.
DR
XX
     Anti-cardiac myosin light chain monoclonal antibody - useful to detect
PT
     cardiac myosin in patients with cardiac muscle damage.
PT
XX
PS
     Example 1; Page 14; 31pp; English.
XX
     AAR99265 corresponds to residues 34-44 of human ventricular myosin light
CC
     chain 1 (MLC-1). This peptide was used for the production of a high
CC
     affinity monoclonal antibody, Mab 39-15, against MLC-1. Residues 34-44 of
CC
     MLC-1 are highly conserved and this sequence may be used alone to produce
CC
     Mab 39-15 or as an octameric branched peptide contg. eight copies of the
CC
     peptide linked C-terminally to a polylysine core. Mab 39-15 is useful to
CC
     detect myosin light chains (esp. cardiac MLC), in a blood, serum or
CC
     plasma sample of patients with cardiac muscle damage e.g. myocardial
CC
CC
     infarction or unstable angina patients
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                                 0; Mismatches
                                                                              0;
  Matches
             3; Conservative
                                                   0; Indels
                                                                  0; Gaps
Qу
            1 ASK 3
              +1
            6 ASK 8
Db
RESULT 36
AAW05350
     AAW05350 standard; peptide; 11 AA.
XX
AC
     AAW05350;
XX
DT
     30-APR-1997 (first entry)
XX
DE
     Residues 363-373 of p53.
XX
     Human; p53; cell proliferation; cell death; regulator; tumour; psoriasis;
ΚW
     negative regulatory region; DNA damaging agent; transplant rejection;
KW
KW
     abnormal cell proliferation; atherosclerosis; cancer; autoimmune disease;
KW
     arterial restenosis; immune response; apoptosis; inducer; therapy;
     proliferating lymphocytes.
KW
XX
OS
     Homo sapiens.
XX
PN
     WO9625434-A1.
XX
PD
     22-AUG-1996.
XX
PF
     16-FEB-1996;
                    96WO-US001535.
XX
```

```
16-FEB-1995;
                    95US-00392542.
PR
XX
PA
     (WIST-) WISTAR INST.
     (FARB ) BAYER CORP.
PA
XX
     Halazonetis T, Hartwig W;
PΙ
XX
     WPI; 1996-393345/39.
DR
XX
     New human p53-isomorphic peptide(s) and peptido:mimetic cpds. - used for
PT
     activating p53 function, e.g. for treating tumours, cancers, psoriasis,
PT
PT
     etc.
XX
     Claim 2; Page 35; 55pp; English.
PS
XX
     AAW05350-W05364 represent the p53 (see AAW05344 for full length wild type
CC
     sequence) peptides of the invention. The p53 protein functions to
CC
     regulate cell proliferation and cell death, and is mutated in more than
CC
     half of all human tumours. These sequences are used to activate the DNA
CC
     binding activity of wild type p53, and p53 mutants (see AAW05345-W05349).
CC
     The peptides of the invention consist of at least four sequential amino
CC
     acids from a negative regulatory region which maps to residues 361-383 of
CC
     p53. These sequences preferably contain four amino acids from a non-human
CC
CC
     p53 sequence, contain D-form amino acids, and can also be cyclic
     peptides. The sequences retain the structural characteristics of the
CC
     original peptides, but the modifications render them less susceptible to
CC
     cleavage by proteases and exopeptidases. As these sequences activate p53
CC
     DNA binding, they can be used to identify p53 mutants. The peptides can
CC
     also be used for treating a patient with a tumour expressing a p53 mutant
CC
CC
     whose ability to bind DNA may be activated by one of the peptides. They
CC
     can also be used for treating conditions such as exposure to DNA damaging
CC
     agents, abnormal cell proliferation characteristic of psoriasis,
CC
     atherosclerosis, cancer, arterial restenosis, autoimmune diseases and
CC
     undesirable immune responses accompanying rejection of a transplant. The
CC
     peptides can also induce apoptosis of specific cells, such as
CC
     proliferating lymphocytes
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%;
                                  Pred. No. 1e+04;
  Matches
             3; Conservative
                                0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            2 SKK 4
Qу
              Db
            9 SKK 11
RESULT 37
AAR92022
     AAR92022 standard; peptide; 11 AA.
ID
XX
     AAR92022;
AC
XX
DT
     18-SEP-1996 (first entry)
XX
DE
     Multiple antigenic peptide based on cluster-w4 polypeptide.
```

```
Antigen; cluster-w4 polypeptide; human small cell lung carcinoma;
KW
K₩
     cell line H69; antibody.
XX
OS
     Synthetic.
XX
                     Location/Oualifiers
FΗ
     Key
     Modified-site
FT
                     /note= "Is attached via a peptide linkage to the C
FT
                     terminal of the peptide sequence: KVAGGALQS"
FT
     Modified-site
FT
                     /note= "Is attached via a peptide linkage to the C
FT
                     terminal of the peptide sequence: KVAGGALQS(KVAGGALQS)K"
FT
XX
PN
     WO9604312-A1.
XX
     15-FEB-1996.
PD
XX
PF
     31-JUL-1995;
                    95WO-GB001795.
XX
     01-AUG-1994;
                    94GB-00015492.
PR
XX
     (CLLT ) CELLTECH THERAPEUTICS LTD.
PA
XX
РΤ
     Lawson AD;
XX
DR
     WPI; 1996-129341/13.
XX
     Binding agent for cluster-w4 polypeptide of small cell lung carcinoma -
PT
PT
     pref. antibody, has low affinity for native CD24, useful in diagnosis and
PT
     treatment.
XX
PS
     Example 1; Page 12; 25pp; English.
XX
     The sequences given in AAR92022-23 represent antigenic peptides based on
CC
     the cluster-w4 polypeptide from human small cell lung carcinoma cell line
CC
CC
     H69 which is known to carry the Val57 mutation. These peptides are
CC
     examples of the generic sequence given in AAR98500. These peptides were
CC
     used in the isolation of an agent, pref. an antibody, which is used in
     the treatment and diagnosis of small cell lung carcinoma
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+04;
  Matches
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 SKK 4
Qу
              111
            9 SKK 11
Db
RESULT 38
AAW41825
     AAW41825 standard; peptide; 11 AA.
ID
XX
AC
     AAW41825;
```

XX

XX 14-MAY-1998 (first entry) DTXX Modified B. burgdorferi sensu lato OspC C-terminal peptide. DE XX Sensu lato; outer surface protein C; OspC; diagnosis; Lyme disease; KW KW vaccine; infection. XX Borrelia burgdorferi. OS os Synthetic. XX Location/Oualifiers FHKey FTModified-site /note= "6-aminohexanoic acid" FTXX PN WO9742221-A1. XX 13-NOV-1997. PDXX 97WO-DK000203. PF02-MAY-1997; XX 02-MAY-1996; 96DK-00000526. PR XX (STAT-) STATENS SERUMINSTITUT. PA XX PIMathiesen MJ, Theisen M, Holm A, Ostergaard S; XX DR WPI; 1997-558908/51. XX Detecting previous sensitisation to the OspC protein of Borellia PTburgdorferi - by detecting immunoreactivity between patient T cells or PTPTimmunoglobulins and C-terminal peptide of the protein. XX PS Example; Page 40; 95pp; English. XX CC The present sequence was used in the development of a novel method for CC the identification of a patient's previous sensitisation to Borellia CC burgdorferi sensu lato outer surface protein C (OspC). The method comprises reacting immunoglobulin (Ig) or T cells from the patient with a CC polypeptide of at most 60 amino acids containing a peptide with at least CC CC 50% identity to the B. burgdorferi derived sequence AAW41821, or its CC subsequences of at least 5 amino acids. The degree of immunological reactivity between the polypeptide and Ig or T cells is measured and CCsignificant reactivity is indicative of sensitisation. The method can be CC CC used to diagnose Lyme disease and is based on reactivity with antibodies CC against the OspC protein. The test can be done in vitro or in vivo, e.g. as a skin test. Vaccine compositions comprising the polypeptide can be CC used to protect humans and other animals against B. burgdorferi CC infection. The polypeptide provides higher sensitivity than full-length CC CC OspC, and so is better at detecting infection in its early stages, especially when combined with the known assay for flagellar proteins. The CC CC seven carboxy-terminal residues of AAW41821 represent an epitope essential for human immune response to OspC. The polypeptide is also CC easier to prepare and purify than (nearly) full-length protein, CC CC facilitating standardisation of the assay, and is less cross-reactive CC with antibodies raised against other antigens. The small size of the CC polypeptide allows a high density of binding sites to be created on a

```
polypeptide increases its resistance to peptidases when used in vivo
CC
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                    0; Indels
                                                                   0;
                                                                       Gaps
                                                                               0;
             3; Conservative
                                0; Mismatches
  Matches
            3 KKP 5
Qy
              \mathbf{H}
            9 KKP 11
Db
RESULT 39
AAW10458
     AAW10458 standard; peptide; 11 AA.
ID
XX
AC
     AAW10458;
XX
     25-MAR-2003
DT
                  (revised)
                  (first entry)
DT
     11-AUG-1997
XX
     Human growth hormone Gln-22 substitution peptide.
DE
XX
     Active site; active domain; growth hormone; somatogenic receptor;
KW
KW
     mutagenesis.
XX
OS
     Synthetic.
XX
     US5580723-A.
PN
XX
     03-DEC-1996.
PD
XX
                    94US-00190723.
PF
     02-FEB-1994;
XX
     28-OCT-1988;
                    88US-00264611.
PR
     26-OCT-1989;
                    89US-00428066.
PR
                    92US-00875204.
     27-APR-1992;
PR
                    92US-00960227.
PR
     13-OCT-1992;
XX
PΑ
     (GETH ) GENENTECH INC.
XX
     Cunningham BC, Wells JA;
PI
XX
DR
     WPI; 1997-033563/03.
XX
     Identification of unknown active domains in polypeptide(s) - useful for
PT
PT
     analysis of structure and function of hormones, etc.
XX
     Disclosure; Col 26; 86pp; English.
PS
XX
     Substitution peptides (AAW10441-62) were used to identify specific amino
CC
     acid residues in human growth hormone (hGH) (AAW10425) which are expected
CC
     to product hGH variants having altered biological functions. The method
CC
CC
     involved substituting selected amino acid segments of hGH with analogous
     segments from analogue polypeptides (human placenta lactogen, human
CC
```

solid support. Incorporation of non-natural amino acid into the

CC

```
CC
     prolactin and pig growth hormone) and examining the effect of the
    substns. on interaction with the soluble hGH receptor (see also
CC
    AAW10426). Once active site domains had been detd., amino acid residues
CC
    within these domains were replaced sequentially with alanine, and the
CC
CC
    effects on interaction with the hGH receptor were again examined. Gln-22
    was identified by this method; the preferred amino acid substn. for this
CC
     residue is given in AAW10458. Active site residues have also been
CC
     identified (see also AAW10427-40). (Updated on 25-MAR-2003 to correct PF
CC
CC
     field.)
XX
     Sequence 11 AA;
SO
 Query Match
                          27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1e+04;
                                                                             0;
                                                                 0; Gaps
                              0; Mismatches 0; Indels
 Matches
            3; Conservative
            2 SKK 4
Qу
             7 SKK 9
Db
RESULT 40
AAW10460
     AAW10460 standard; peptide; 11 AA.
XX
     AAW10460;
AC
XX
DT
     25-MAR-2003 (revised)
DT
     11-AUG-1997 (first entry)
XX
DE
     Human growth hormone Gln-29 substitution peptide.
XX
KW
     Active site; active domain; growth hormone; somatogenic receptor;
KW
     mutagenesis.
XX
OS
     Synthetic.
XX
PN
     US5580723-A.
XX
     03-DEC-1996.
PD
XX
PF
     02-FEB-1994;
                    94US-00190723.
XX
     28-OCT-1988;
                    88US-00264611.
PR
PR
     26-OCT-1989;
                    89US-00428066.
PR
     27-APR-1992;
                    92US-00875204.
PR
     13-OCT-1992;
                    92US-00960227.
XX
PA
     (GETH ) GENENTECH INC.
XX
ΡĮ
     Cunningham BC, Wells JA;
XX
DR
     WPI; 1997-033563/03.
XX
PΤ
     Identification of unknown active domains in polypeptide(s) - useful for
PT
     analysis of structure and function of hormones, etc.
XX
```

```
Disclosure; Col 26; 86pp; English.
XX
     Substitution peptides (AAW10441-62) were used to identify specific amino
CC
     acid residues in human growth hormone (hGH) (AAW10425) which are expected
CC
     to product hGH variants having altered biological functions. The method
CC
     involved substituting selected amino acid segments of hGH with analogous
CC
     segments from analogue polypeptides (human placenta lactogen, human
CC
     prolactin and pig growth hormone) and examining the effect of the
CC
     substns. on interaction with the soluble hGH receptor (see also
CC
     AAW10426). Once active site domains had been detd., amino acid residues
CC
     within these domains were replaced sequentially with alanine, and the
CC
     effects on interaction with the hGH receptor were again examined. Gln-29
CC
     was identified by this method; the preferred amino acid substn. for this
CC
     residue is given in AAW10460. Active site residues have also been
CC
     identified (see also AAW10427-40). (Updated on 25-MAR-2003 to correct PF
CC
CC
     field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                              0;
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            2 SKK 4
Qy
              111
            7 SKK 9
Db
RESULT 41
AAW33181
     AAW33181 standard; peptide; 11 AA.
ID
XX
AC
     AAW33181;
XX
DT
     29-JAN-1998 (first entry)
XX
DE
     Mono-DTPA-Lys1 Substance P.
XX
KW
     Substance P; radiolabel; diagnostic imaging; therapy; mono-DTPA-Lys1.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "DTPA-Lys"
FT
     Modified-site
FT
                     /note= "amidated"
XX
PΝ
     WO9640292-A1.
XX
PD
     19-DEC-1996.
XX
PF
     07-JUN-1996;
                    96WO-US009706.
XX
PR
     07-JUN-1995;
                    95US-00480372.
XX
PA
     (MLCW ) MALLINCKRODT MEDICAL INC.
```

PS

```
XX
PΙ
     Srinivasan A;
XX
     WPI; 1997-087027/08.
DR
XX
     Prepn. of pure radio: labelled peptide, e.g. for diagnostic imaging - by
PT
     combining protected poly:amino:carboxylate ligand with peptide and
PT
РΤ
     forming complex with radionuclide.
XX
     Example 4; Page 12; 20pp; English.
PS
XX
     Preparing a radiolabelled peptide composition, comprises combining a
CC
     triamine or diamine chelating agent with a peptide, e.g. the present
CC
     peptide, in a solid phase peptide synthesiser, and complexing a
CC
     radionuclide with the chelate-peptide conjugate. Radiolabelled peptides
CC
     or peptidomimetics can be used as diagnostic imaging agents, or in
CC
     therapeutic applications, e.g. iodine(111) labelled pentatreotide can be
CC
     used for somatostatin receptor imaging of neuroendocrine tumours. The
CC
     radiolabelled products are obtained efficiently and inexpensively in high
CC
     purity. The protected polyaminocarboxylate ligands can be added to the
CC
     peptide by standard solution or solid phase peptide synthesis and
CC
     deprotected with conventional reagents to give only the mono-addition
CC
     product, free of di-addition product impurities. The deprotected product
CC
     can be labelled with medically useful radionuclides, e.g lanthanides or
CC
     actinides, at any desired location. Pre-derivatisation of individual
CC
     amino acids is not required
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             3; Conservative
            4 KPK 6
Qу
              | \cdot |
            1 KPK 3
Db
RESULT 42
AAW23266
     AAW23266 standard; peptide; 11 AA.
XX
AC
     AAW23266;
XX
DT
     03-NOV-1997 (first entry)
XX
DE
     Tumour necrosis factor alpha inhibiting peptide.
XX
KW
     Tumour necrosis factor; alpha; TNF-alpha; inhibition; treatment;
KW
     mediation; disorder; septic shock; bacterium; virus; fungus; infection;
     autoimmune; disease; alcohol induced hepatitis; sarcoiditis; Crohn's;
KW
     disseminated intravascular coagulation; graft versus host; Rawasaki's;
KW
KW
     tumour; bacteria.
XX
OS
     Synthetic.
XX
PN
     US5641751-A.
```

```
XX
     24-JUN-1997.
PD
XX
                    95US-00432694.
PF
     01-MAY-1995;
XX
PR
     01-MAY-1995;
                    95US-00432694.
XX
PΑ
     (CENZ ) CENTOCOR INC.
XX
PI
     Heavner GA;
XX
DR
     WPI; 1997-340972/31.
XX
PT
     Peptide inhibiting tumour necrosis factor alpha - useful for treating
PT
     septic shock, infections, autoimmune diseases, etc.
XX
     Disclosure; Col 23-24; 15pp; English.
PS
XX
     The present peptide is a tumour necrosis factor alpha (TNF-alpha)
CC
CC
     inhibitor, which can be used to treat TNF-alpha mediated disorders, e.g.
     septic shock, bacterial, viral and fungal infections, autoimmune
CC
     diseases, alcohol induced hepatitis, sarcoiditis, Crohn's disease,
CC
     disseminated intravascular coagulation, graft versus host disease,
CC
CC
     Rawasaki's disease and TNF-alpha secreting tumours. The peptide is
     preferably given as a daily dose of 1-1000, preferably 1-10 mg/kg
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2;
  Query Match
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                                0; Mismatches
                                                    0; Indels
                                                                               0;
 Matches
             3; Conservative
                                                                   0; Gaps
            1 ASK 3
Qу
              | | |
Db
            2 ASK 4
RESULT 43
AAW39588
     AAW39588 standard; peptide; 11 AA.
ID
XX
AC
     AAW39588;
XX
DT
     11-JUN-1998
                  (first entry)
XX
DE
     Human melanoma associated protein tyrosinase peptide (pos. 116-126).
XX
KW
     T cell epitope; immune response; human leukocyte antigen; HLA Class I;
KW
     vaccine; immunogenic; major histocompatablilty complex; MHC; B cell;
KW
     disease; anti-tumour; anti-viral.
XX
OS
     Homo sapiens.
XX
PN
     WO9741440-A1.
XX
PD
     06-NOV-1997.
XX
```

```
28-APR-1997;
                    97WO-NL000229.
PF
XX
     26-APR-1996;
                    96EP-00201145.
PR
     23-DEC-1996;
                    96EP-00203670.
PR
XX
PΑ
     (UYLE-) RIJKSUNIV LEIDEN.
     (SCIS-) SCI SEED CAPITAL INVESTMENTS BV.
PΑ
XX
     Van Der Burg SH, Kast WM, Toes REM, Offringa R, Melief CJM;
ΡI
XX
DR
     WPI; 1997-549891/50.
XX
     Method of selecting T cell peptide epitope(s) - by measuring the
PT
     stability of HLA class I-peptide complexes on intact B cells.
PT
XX
     Example 3; Page 75; 109pp; English.
PS
XX
     Peptides AAW39430-W39734 are used in a novel method for the selection of
CC
     immunogenic T-cell peptide epitopes present in polypeptide antigens. The
CC
     method involves the identification of peptide sequences capable of
CC
     binding to an HLA (human leukocyte antigen) class I molecule and
CC
     measuring the binding of this epitope peptide to the HLA class I peptide.
CC
     The stability of binding of the peptide and MHC (major histocompatablilty
CC
     complex) class I molecule is measured on intact human B cells carrying
CC
     the MHC molecule at their cell surfaces. The method can be used to select
CC
     peptide epitopes for generating vaccines against a disease associated
CC
     with the polypeptide, e.g. cancers or AIDS. The peptide epitopes are
CC
CC
     especially T-cell peptide epitopes with strong anti-tumour and anti-viral
     immune responses. Peptide AAW39588 is derived from the human melanoma
CC
     associated protein tyrosinase which is capable of upregulating HLA-A*0201
CC
CC
     molecules on T2 cells
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
             3; Conservative
                                0; Mismatches
  Matches
            7 RNI 9
Qу
              \mathbf{I} \mathbf{I} \mathbf{I}
            6 RNI 8
Db
RESULT 44
AAW09910
     AAW09910 standard; peptide; 11 AA.
XX
     AAW09910;
AC
XX
DT
     16-OCT-1997 (first entry)
XX
     Prostate specific membrane antigen peptide PSM-P27.
DE
XX
     Prostate specific membrane antigen; PSMA; prostate specific antigen; PSA;
KW
     prostate cancer; adoptive cellular immunotherapy; therapy; vaccine.
KW
XX
OS
     Homo sapiens.
```

```
XX
PN
     WO9704802-A1.
XX
PD
     13-FEB-1997.
XX
     29-JUL-1996;
                    96WO-US012389.
PF
XX
     31-JUL-1995;
                    95US-00509254.
PR
XX
     (PACI-) PACIFIC NORTHWEST CANCER FOUND.
PA
XX
     Murphy GP, Boynton AL, Tjoa BA;
PI
XX
     WPI; 1997-145375/13.
DR
XX
PT
     Use of dendritic cells for prostate cancer immuno: therapy - the cells are
     exposed to prostate cancer antigen, then administered to the patient
PT
     where they activate and proliferate T-cells.
PT
XX
PS
     Claim 3; Page 47; 69pp; English.
XX
     Peptide PSM-P27 (AAW09910) corresponds to amino acid residues 63-73 of
CC
     prostate specific membrane antigen (PSMA). A method for producing a
CC
     cancer growth inhibiting response comprises exposing human dendritic
CC
     cells (DCs) to PSM-P27 or other PSMA or prostate specific antigen
CC
     peptides (see also AAW09889-909 and AAW09911-26), and then administering
CC
CC
     the DCs to a prostate cancer patient to activate T cell responses in
CC
     vivo. Alternatively, the T cell response is activated in vitro and the T
CC
     cells are then administered to the patient. In either case, the DCs are
     used to elicit an immunotherapeutic growth inhibiting response against a
CC
     primary or metastatic prostate tumour. PSM-P27 was selected to be
CC
CC
     presented by DCs to activate T cells of a patient which match the All
CC
     haplotype
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%;
                                  Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                              0;
             3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
            8 NIK 10
QУ
              \mathbf{I}
            7 NIK 9
Db
RESULT 45
AAY22688
     AAY22688 standard; peptide; 11 AA.
XX
AC
     AAY22688;
XX
DT
     13-AUG-1999 (first entry)
XX
DE
     Neurokinin receptor antagonist.
XX
KW
     Bradykinin antagonist; lung cancer cell growth; apoptosis; cancer;
KW
     allergic reaction; arthritis; asthma; sepsis; viral rhinitis;
```

```
KW
     inflammatory bowel disease.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
    Misc-difference 1
FT
                     /note= "D-form residue"
FT
    Misc-difference 2
                     /note= "D-form residue"
FT
FT
    Misc-difference 7
                     /note= "D-form residue"
FT
FT
    Misc-difference 9
                     /note= "D-form residue"
FT
FT
    Modified-site
FT
                     /label= Nle
                     /note= "norleucine"
FT
XX
    WO9709347-A1.
PN
XX
PD
    13-MAR-1997.
XX
                    96WO-US014113.
PF
     03-SEP-1996;
XX
                    95US-00526065.
PR
     08-SEP-1995;
XX
PA
     (CORT-) CORTECH INC.
PΑ
     (UYTE-) UNIV TECHNOLOGY CORP.
XX
PI
    Whalley ET,
                  Stewart JM,
                               Chan DC, Gera L;
XX
     WPI; 1997-192841/17.
DR
XX
     Use of bradykinin antagonists and neurokinin receptor antagonists to
PT
PT
     inhibit lung cancer cell growth - also new bradykinin antagonist monomers
     and dimers.
PT
XX
     Claim 13; Page 38; 51pp; English.
PS
XX
     AAY22686-94 represent neurokinin receptor antagonist, used to make
CC
     compounds of the formula BKA-X-Y, where X is a linker, BKA is a
CC
CC
     bradykinin antagonist chosen from AAY22658-72, and Y is a neurokinin
CC
     receptor antagnonist chosen from AAY22686-94. Dimerisation of bradykinin
CC
     antagonist peptides increases the potency and stability of the
     antagonists. The antagonists are used in methods for inhibiting lung
CC
CC
     cancer cell growth. It has been found that the antagonists induce
     apoptosis in the treated lung cancer cells. The bradykinin antagonists
CC
CC
     are used for treating cancer, especially small cell lung carcinoma. They
     are also useful in the treatment of other bradykinin-related conditions
CC
CC
     such as allergic reactions, arthritis, asthma, sepsis, viral rhinitis and
CC
     inflammatory bowel disease
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
```

```
111
            3 KPK 5
Db
RESULT 46
AAW10197
     AAW10197 standard; peptide; 11 AA.
ID
XX
     AAW10197;
AC
XX
     22-JUL-1997
                  (first entry)
DT
XX
     Serum immunoregulatory polypeptide C-terminal peptide 7.
DE
XX
     SIP; Serum immunoregulatory polypeptide; modulator; immune response;
KW
KW
     activate; suppressor T cell; suppress; lymphocyte proliferation;
KW
     cell-mediated; humoral immunity; induce tolerance; treatment;
     allograft rejection; autoimmune disease; graft versus host disease;
KW
     allergy; cancer; AIDS.
KW
XX
OS
     Synthetic.
XX
PN
     W09638164-A1.
XX
     05-DEC-1996.
PΠ
XX
PF
     30-MAY-1996;
                    96WO-US007925.
XX
PR
     31-MAY-1995;
                    95US-00455645.
XX
PΑ
     (REGC ) UNIV CALIFORNIA.
XX
PΙ
     Chang Y, Abraham E;
XX
     WPI; 1997-034096/03.
DR
XX
PT
     New immuno-regulatory peptide(s) from serum and synthetic analogues -
PT
     activate suppressor T cells and inhibit prodn. of lymphokine(s) and
PT
     interleukin-2, for treatment of e.g. allograft rejection, auto-immune
PT
     disease.
XX
PS
     Disclosure; Page 8; 35pp; English.
XX
CC
     Serum immunoregulatory polypeptides (SIP) of the general formula X-
CC
     AAW10180-Y (where X and Y are 0-10 and 0-110 amino acids resp.). SIP are
CC
     modulators of the immune response in mammals. The SIPs activate
     suppressor T cells (reducing lymphocyte proliferation) and suppress
CC
     prodn. of lymphokines and IL-2 by lymphocytes, i.e. they suppress both
CC
CC
     cell-mediated and humoral immunity and induce tolerance. They can be used
     treatment of allograft rejection, autoimmune disease (e.g. systemic lupus
CC
     erythematosus and rheumatoid arthritis), graft vs. host disease, allergy,
CC
CC
     cancer (e.g. some forms of leukaemia that require IL-2 at certain stages)
CC
     and AIDS. SIP can also be used to raise MAb. Apart from diagnostic use
CC
     (i.e. identifying subjects at risk of developing diseases associated with
CC
     abnormal immune response or serious infections after traumatic injury),
CC
     MAb can be used to increase the immune response in immunodeficiency
```

4 KPK 6

Qу

```
therapeutic index without toxic side effects at physiological doses.
CC
     AAW10191-99 are exemplary Y amino acid sequences
CC
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative
                                0; Mismatches
                                                                              0;
 Matches
                                                  0; Indels
                                                                  0;
                                                                      Gaps
            8 NIK 10
Qу
              1 NIK 3
Db
RESULT 47
AAW18223
     AAW18223 standard; peptide; 11 AA.
ID
XX
AC
    AAW18223;
XX
DT
     21-AUG-1997 (first entry)
XX
     Mycobacterium tuberculosis antigenic peptide A.
DΕ
XX
     Vaccine; M.tuberculosis; M.leprae; M.avium; M.bovis.
KW
XX
OS
     Mycobacterium tuberculosis.
XX
                     Location/Qualifiers
FΗ
FT
     Modified-site
FT
                     /note= "formyl-Met"
XX
ΡN
     WO9640236-A1.
XX
PD
     19-DEC-1996.
XX
PF
     05-JUN-1996;
                    96WO-US009473.
XX
     07-JUN-1995;
PR
                    95US-00484169.
XX
PΑ
     (NAJE-) NAT JEWISH CENT IMMUNOLOGY & RESPIRATORY.
XX
PΙ
     Potter TA, Dow SW, Orme IM;
XX
DR
     WPI; 1997-051903/05.
XX
     Mycobacterium derived antigenic peptide residue, - comprises amino
PT
PТ
     terminal formylated Met, used in Mycobacterium BCG based vaccine.
XX
PS
     Example 1; Page 55; 93pp; English.
XX
     The present sequence represents an antigenic peptide, Mycobacterium
CC
CC
     tuberculosis peptide A, which has an amino terminal formylated Met
CC
     residue, which is capable of protecting an animal against Mycobacterium
CC
     infection. A suitable nucleic acid molecule comprises a portion of a
CC
     Mycobacterium gene, preferably from M.tuberculosis. The peptides and
```

states where SIP is involved. In particular the SIP have a wide

CC

```
nucleic acids may be used, with an acceptable carrier, in an immunogenic
CC
     composition to protect an animal from an intracellular pathogen,
CC
CC
     preferably a Mycobacterium species selected from M.tuberculosis,
CC
     M.leprae, M.avium and M.bovis. As the compositions of the invention are
     not whole cell vaccines, they do not interfere with commonly used
CC
     Mycobacterium diagnostic skin tests such as PPD tests. In addition unlike
CC
     a whole cell vaccine like BCG, use of a peptide is not accompanied by the
CC
     risk of reversion to virulence
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             3; Conservative
            8 NIK 10
Qу
              \mathbf{I}
            5 NIK 7
Db
RESULT 48
AAW10140
     AAW10140 standard; peptide; 11 AA.
ΙD
XX
AC
     AAW10140;
XX
DT
     25-MAR-2003
                  (revised)
DT
     02-OCT-1997
                 (first entry)
XX
     Hepatitis C virus peptide antigen IIA.
DE
XX
KW
     Antibody; HCV; immunoassay; vaccine; mimic.
XX
os
     Synthetic.
XX
FH
                     Location/Qualifiers
FT
     Modified-site
                     /note= "H or a linker arm by which the peptide can be
FT
                     attached to a carrier or solid phase comprising at least
FT
                     one amino acid and as many as 60, most frequently 1-20
FT
                     amino acids, such as Cys, Lys, Tyr, Glu or Asp, or
FT
FT
                     chemical groups such as biotin or thioglycolic acid; can
FT
                     be modified by acetylation"
FT
     Modified-site
                     /note= "A bond or a linker arm by which the peptide can
FT
                     be attached to a carrier or solid phase comprising at
FT
                     least one amino acid and as many as 60 amino acids, most
FT
                     frequently 1-10 amino acids, such as Cys, Lys, Tyr, Asp,
FT
FT
                     or chemical groups such as biotin or thioglycolic acid;
FT
                     and attached on to that is NH2, OH or a linkage involving
FT
                     either of these two groups"
XX
PN
     EP754704-A2.
XX
PD
     22-JAN-1997.
XX
PF
     14-DEC-1990; 96EP-00201157.
```

```
XX
     14-DEC-1990;
                    90EP-00124241.
PR
XX
     (INNO-) INNOGENETICS NV.
PΑ
XX
PΙ
     Deleys RJ, Pollet D, Maertens G, Van Heuverswyn H;
XX
     WPI; 1997-089256/09.
DR
XX
PT
     Hepatitis C virus peptide mimics - for use in immunoassays, vaccines,
PT
     etc.
XX
PS
     Claim 2; Page 38; 65pp; English.
XX
     The present sequence represents a novel synthetic Hepatitis C virus (HCV)
CC
     antiqen IIA for the detection of antibodies. The peptide contains
CC
     modifications at the N- and C-terminal (see features table) with the
CC
CC
     condition that if the modification represents an amino acid(s), that they
     are different from any naturally occurring HCV flanking regions. The
CC
     peptide represents an HCV peptide mimic and may be used as an immunoassay
CC
     reagent for detecting antibodies to HCV; for incorporation into vaccines
CC
     against HCV; and for raising antibodies against HCV. (Updated on 25-MAR-
CC
     2003 to correct PF field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
  Matches
            6 KRN 8
Qу
              | | | |
            5 KRN 7
Db
RESULT 49
AAW35543
     AAW35543 standard; peptide; 11 AA.
ΙD
XX
AC
     AAW35543;
XX
DT
     25-MAR-2003
                  (revised)
DT
     22-APR-1998
                  (first entry)
XX
     Immunization DNDPC SEQ ID NO:87 from WO9738011.
DE
XX
     T-cell stimulatory peptide; immunogen; non-dendritic; carrier; tumour;
KW
KW
     scaffold; inhibition; metastasis; wound healing; solid phase.
XX
OS
     Synthetic.
XX
PN
     WO9738011-A1.
XX
PD
     16-OCT-1997.
XX
                    97WO-DK000146.
PF
     03-APR-1997;
XX
```

```
96DK-00000398.
     03-APR-1996;
PR
XX
PΑ
     (PEPR-) PEPRESEARCH AS.
XX
     Heegaard PMH,
                    Jakobsen PH;
PI
XX
     WPI; 1997-512645/47.
DR
XX
     Non-dendritic peptide carrier linked to a solid phase - useful as a
PT
     diagnostic agent and as a scaffold for production of chemical
PT
PT
     derivatives.
XX
     Example 31; Page 156; 262pp; English.
PS
XX
     A non-dendritic peptide carrier (A) has been developed which is coupled
CC
     through a linker to a solid phase, forming a complex of (A)-solid phase.
CC
     Where (A) comprises 10-50 amino acids capable of forming a secondary
CC
     structure in a benign buffer after liberation from the solid phase, and
CC
     further the (A)-solid phase complex comprises an immunogenic substance
CC
     and/or an immune mediator coupled on (A). The present sequence represents
CC
     a peptide used in an example from the present invention. An (A)-solid
CC
     phase complex can be used as a scaffold for the production of chemical
CC
     derivatives, characterised by covalently attaching molecules at
CC
     attachment points. Alternatively (A) is used as a scaffold-peptide for
CC
     the incorporation into an Immunostimulating Complex (Iscom) resulting an
CC
     (A)-Iscom complex which is used for the chemical coupling of antigenic
CC
     substances in an aqueous solution by conjugation. (A) derivatised with
CC
CC
     one or more peptides having fibronectin-, laminin- or vitronectin-like
     binding activities can be used for the promotion of cell-attachment to
CC
     plastic surfaces, in particular to inhibit tumour growth and metastasis,
CC
     and for promotion of wound healing. Also a derivatised (A) can be used
CC
     for the selection of specifically-binding aptamers or as a diagnostic
CC
     agent. Such diagnostic-(A) molecules could be used to detect molecules
CC
     derived from or indicative of pregnancy or of a disease, such as an
CC
     infectious, autoimmune or cancerous disease. (Updated on 25-MAR-2003 to
CC
CC
     correct PF field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2;
                                                    Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
  Matches
            2 SKK 4
Qу
              \mathbf{I} \mathbf{I} \mathbf{I}
            7 SKK 9
Db
RESULT 50
AAW12550
     AAW12550 standard; peptide; 11 AA.
ID
XX
AC
     AAW12550;
XX
DT
     30-APR-1997 (first entry)
XX
     Japanese cedar pollen allergen-derived peptide 19.
DE
```

```
XX
     Japanese cedar; sugi; pollen; pollinosis; pollenosis; allergen; allergy;
KW
     T-cell epitope; TCR; T-cell receptor; activation; immune tolerance; Cryj.
KW
XX
OS
     Cryptomeria japonica.
     Synthetic.
os
XX
     JP08333391-A.
PN
XX
     17-DEC-1996.
PD
XX
     18-JUL-1995;
                    95JP-00181438.
PF
XX
     07-APR-1995;
                    95JP-00082519.
PR
XX
     (HAYB ) HAYASHIBARA SEIBUTSU KAGAKU.
PA
     (SANY ) SANKYO CO LTD.
PA
XX
DR
     WPI; 1997-095487/09.
XX
     Peptide allergen derived from Japanese cedar pollen - causes T cell
PT
     response specific to cedar pollen, for treatment of pollenosis.
PT
XX
PS
     Claim 27; Page 20; 21pp; Japanese.
XX
     The present sequence is one of 24 claimed peptides which were synthesised
CC
     based on Japanese cedar pollen sequences. This peptide was shown to have
CC
     Japanese cedar pollen antigen T cell epitope activity by using T cells
CC
     isolated from a cedar pollinosis patient. The peptide produces little or
CC
CC
     no anaphylaxis
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             3; Conservative
            1 ASK 3
Qу
              | | |
            2 ASK 4
Db
RESULT 51
AAW39795
     AAW39795 standard; protein; 11 AA.
XX
AC
     AAW39795;
XX
DT
     11-JUN-1998 (first entry)
XX
     Tobacco PABFe repeated AT hook.
DE
XX
     Palindromic element binding factor; PABF; tobacco; cis-acting element;
KW
     transcription enhancer; heterologous promoter; AATT repeat element;
KW
KW
     transcription factor; AT hook.
XX
OS
     Nicotiana tabacum.
```

```
XX
PN
     WO9749727-A1.
XX
PD
     31-DEC-1997.
XX
     27-JUN-1997;
                    97WO-US011156.
PF
XX
     27-JUN-1996;
                    96US-00669721.
PR
XX
     (SALK ) SALK INST BIOLOGICAL STUDIES.
PA
XX
     Lamb CJ, Doerner P, Laible G;
PΙ
XX
     WPI; 1998-077110/07.
DR
XX
     New isolated enhancer and transcription factor - used for increasing the
PT
PT
     recombinant expression of proteins, particularly in plants, e.g. for
PT
     increasing production or providing pest resistance.
XX
PS
     Disclosure; Fig 7B; 65pp; English.
XX
     AAW39790-W39796 are AT hook motifs used in the characterisation of a
CC
     novel tobacco palindromic element binding factor, (PABF). This PABF binds
CC
     to the sequence (AATT)n where n at least 2. The (AATT)n sequence has cis-
CC
     acting, non-specific enhancer activity. It can be linked to a
CC
     heterologous promoter operably linked with a gene to increase expression
CC
     of the gene in a cell, particularly in plants. It can provide for
CC
CC
     increased expression of proteins such as nutritionally important
     proteins, growth promoting factors, proteins for early flowering in
CC
CC
     plants, proteins giving protection to the plant under certain
CC
     environmental conditions, e.g. proteins conferring resistance to metals
     or other toxic substances, such as herbicides or pesticides, stress-
CC
CC
     related proteins which confer tolerance to temperature extremes, proteins
CC
     conferring resistance to fungi, bacteria, viruses, insects and nematodes,
CC
     proteins of specific commercial value, e.g. enzymes involved in metabolic
CC
     pathways, such as EPSP synthase. The PABF polypeptides act as
CC
     transcription factor and bind to the (AATT) repeat element to further
CC
     boost the activity of the enhancer
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2;
                                                  Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
            3; Conservative
                                                   0; Indels
            5 PKR 7
Qу
              111
            3 PKR 5
Db
RESULT 52
AAW62014
     AAW62014 standard; peptide; 11 AA.
ID
XX
AC
     AAW62014;
XX
     01-OCT-1998 (first entry)
```

```
DE
     Light chain variable region complementarity determining region 1.
XX
KW
     Complementarity determining region; light chain variable region;
ΚW
     humanised antibody; MHM24F(ab)-8; anti-CD11a antibody;
     human CD11a I domain; MHM24 epitope; alpha subunit;
ΚW
     lymphocyte function-associated antigen 1; LFA-1; immunoassay;
KW
     in vivo imaging; diagnosis; CD11a-associated disease.
KW
XX
OS
     Mus sp.
OS
     Homo sapiens.
XX
     WO9823761-A1.
PN
XX
PD
     04-JUN-1998.
XX
PF
     20-OCT-1997;
                    97WO-US019041.
XX
PR
     27-NOV-1996;
                    96US-00757205.
XX
     (GETH ) GENENTECH INC.
PA
XX
PΙ
     Jardieu PM,
                  Presta LG;
XX
DR
     WPI; 1998-322737/28.
XX
     New humanised anti-CD11a antibody - used in immunoassays for CD11a, and
PT
     also to treat conditions such as immunological or inflammatory disease.
PT
XX
PS
     Claim 8; Page 2; 66pp; English.
XX
CC
     AAW62014-16 represent complementarity determining regions of the light
CC
     chain variable region of humanised antibody MHM24F(ab)-8. The fragments
CC
     were used to make a humanised anti-CD11a antibody that binds specifically
CC
     to the human CD11a I domain (MHM24 epitope). CD11a refers to the alpha
CC
     subunit of lymphocyte function-associated antigen 1 (LFA-1) from any
CC
     mammal. The humanised anti-CD11a antibodies are used to determine
CC
     presence of CD11a in usual immunoassays or by in vivo imaging,
CC
     particularly for diagnosis of CD11a-associated diseases (typically immune
CC
     responses and inflammation such as psoriasis, Crohn's disease, rheumatoid
CC
     arthritis, transplant rejection, leukaemia, etc
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
  Matches
             3; Conservative
                               0; Mismatches 0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            1 ASK 3
Qy
              III
            2 ASK 4
Db
RESULT 53
AAY20193
     AAY20193 standard; protein; 11 AA.
XX
```

XX

```
AAY20193;
AC
XX
DT
     22-JUL-1999 (first entry)
XX
DΕ
     Human beta-amyloid precursor protein mutant fragment 18.
XX
     Human; beta-amyloid precursor protein; beta-APP; diagnosis; cancer;
ΚW
     frameshift mutation; age-related disease; neurodegenerative disorder;
KW
     Alzheimer's disease; Down's syndrome; myotonic dystrophy; neuronal;
KW
     Huntington's disease; multiple sclerosis; alcoholic liver disease;
KW
KW
     diabetes mellitus type II; microtubule associated protein; Tau; Big Tau;
     ubiquitin B; apolipoprotein E; MAP2; neurofilament-L; neurofilament-M;
KW
     neurofilament-F; presenilin I; presenilin II; cellular tumour antigen;
ΚW
     qlial fibrillary acidic protein; GFAP; p53; semaphorin III; HUPF-1;
KW
     bcl-2; B-cell leukemia/lymphoma 2 proto-oncogene; HMGP-C; NSP-A;
KW
     high mobility group protein-C; neuroendocrine specific protein A.
KW
XX
OS
     Synthetic.
OS
     Homo sapiens.
XX
ΡN
     WO9845322-A2.
XX
     15-OCT-1998.
PD
XX
PF
     02-APR-1998;
                    98WO-IB000705.
XX
PR
     10-APR-1997;
                    97US-0043163P.
XX
     (ROYA-) ROYAL NETHERLANDS ACAD ARTS & SCI.
PA
PΑ
     (UYRO-) UNIV ROTTERDAM ERASMUS.
PΑ
     (UYUT-) RIJKSUNIV UTRECHT.
XX
PΙ
     Van Leeuwen FW, Grosveld FG, Burbach JPH;
XX
DR
     WPI; 1998-609901/51.
     N-PSDB; AAX75753.
DR
XX
     Diagnosing disease by detecting frameshift mutations in RNA or
PT
PT
     corresponding protein mutations - used to diagnose cancer and
PT
     neurological diseases, particularly Alzheimer's disease, and also for
PT
     treatment and prevention with specific ribozymes or wild-type RNA.
XX
PS
     Disclosure; Fig 2; 258pp; English.
XX
CC
     This invention describes a novel method for the diagnosis of a disease
CC
     caused by, or associated with, an RNA molecule that has a frameshift
CC
     mutation. The method is used to diagnose age-related diseases, especially
CC
     cancer and a wide range of neurodegenerative disorders (e.g. Alzheimer's
     disease, Down's syndrome, myotonic dystrophy, Huntington's disease,
CC
CC
     multiple sclerosis, alcoholic liver disease, diabetes mellitus type II
CC
     and many others listed) or susceptibility to these disorders. The method
CC
     allows a definitive diagnosis of Alzheimer's disease in living patients,
CC
     at an early stage. It is based on the observation that disease may be
CC
     caused by mutations in RNA rather than DNA. The invention describes the
CC
     used of neuronal system RNA molecules, specifically proteins including
CC
     beta-amyloid precursor protein (beta-APP), the microtubule associated
CC
     proteins Tau and Big Tau, ubiquitin B, apolipoprotein E, microtubule
```

```
associated protein 2 (MAP2), neurofilament-L, neurofilament-M,
CC
CC
     neurofilament-F, presenilin I, presenilin II, glial fibrillary acidic
CC
     protein (GFAP), the cellular tumour antigen p53, B-cell leukemia/lymphoma
CC
     2 (bcl-2) proto-oncogene, semaphorin III, HUPF-1, high mobility group
     protein-C (HMGP-C) and neuroendocrine specific protein A
CC
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                                0; Mismatches
                                                                              0;
  Matches
            3; Conservative
                                                   0; Indels
                                                                  0; Gaps
            5 PKR 7
Qγ
              111
            1 PKR 3
Db
RESULT 54
AAW78614
     AAW78614 standard; peptide; 11 AA.
XX
AC
     AAW78614;
XX
     04-NOV-1998 (first entry)
DT
XX
DE
     SH2 domain binding inhibiting peptide SEQ ID NO:103.
XX
KW
     SH2 domain; binding; inhibition; interaction; site specific;
     signal transduction; protein tyrosine kinase; phosphotyrosine;
KW
     growth factor receptor; oncogene; cellular growth; cell proliferation;
KW
     metabolic control; diabetes; PTK; proto-oncogene; insulin receptor.
KW
XX
OS
     Synthetic.
XX
FΗ
                     Location/Qualifiers
FT
     Misc-difference 4
                     /note= "unspecified"
FT
XX
PN
     US5801149-A.
XX
PD
     01-SEP-1998.
XX
                    95US-00408604.
PF
     21-MAR-1995;
XX
     19-JUN-1991;
                    91US-00722359.
PR
     09-OCT-1992;
                    92US-00959949.
PR
     08-OCT-1993;
PR
                    93US-00134558.
XX
PΑ
     (JOSL-) JOSLIN DIABETES CENT INC.
XX
PΙ
     Shoelson S;
XX
DR
     WPI; 1998-494822/42.
XX
     Inhibiting site-specific SH2 domain interaction - with peptide containing
PT
     phosphotyrosine or phosphotyrosine mimic.
PT
XX
```

```
XX
     A method has been developed of inhibiting a site-specific interaction
CC
CC
     between a first molecule having an SH2 domain and a second molecule that
     interacts with the SH2 domain. The method comprises contacting the first
CC
     molecule with a 4- to 30-mer peptide containing a sequence of formula: R1
CC
     -Met-R3-Met (I), where R1 = phosphotyrosine (pTyr) or a phosphotyrosine
CC
     analogue having a hydrolysis-resistant phosphorous moiety, and R3 = any
CC
     amino acid. AAW78501 to AAW78523 represent specifically claimed examples
CC
     of the peptides described. The peptides are useful for modulating both
CC
     cellular growth to control unwanted cell proliferation in e.g selected
CC
     malignancies and for metabolic control in e.g. diabetes, by inhibiting
CC
     signal transduction molecules such as protein tyrosine kinases (PTKs)
CC
     which include growth factor receptors, proto-oncogene and oncogene
CC
     products and the insulin receptor. The peptides are also useful for
CC
     treating and for studying the enzymatic mechanisms of PTPase activity and
CC
     the metabolic and biochemical roles of PTPases. AAW78524 to AAW78702
CC
     represent other peptides given in the present invention, but which are
CC
     not specifically claimed
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
  Matches
            8 NIK 10
Qу
              111
            6 NIK 8
Db
RESULT 55
AAW62443
     AAW62443 standard; peptide; 11 AA.
ID
XX
     AAW62443;
AC
XX
DT
     01-OCT-1998
                 (first entry)
XX
     Human neutrophil granule bactericidal derived peptide SEQ ID NO:58.
DE
XX
     Bactericidal; Pseudomonas sp; endotoxin shock; bacterial infection;
KW
     bactericidal permeability increasing factor; B/PI; neutralising;
KW
     human neutrophil granule bactericidal protein.
KW
XX
     Homo sapiens.
OS
OS
     Synthetic.
XX
PN
     US5786324-A.
XX
PD
     28-JUL-1998.
XX
PF
     24-MAR-1994;
                    94US-00218026.
XX
                    94US-00218026.
PR
     24-MAR-1994;
XX
     (MINU ) UNIV MINNESOTA.
PA
```

Disclosure; Col 73; 70pp; English.

PS

```
XX
PΙ
     Mayo K,
            Haseman JR, Gray B;
XX
     WPI: 1998-436578/37.
DR
XX
     Bactericidal and endotoxin-neutralising peptides - used in treating e.g.
PΤ
     Pseudomonas species infection and in protectively coating prosthetic
PT
PT
     devices.
XX
     Example 1; Col 19; 46pp; English.
PS
XX
     The present invention describes bactericidal peptides (BP): (a) for
CC
     Pseudomonas species; (b) with endotoxin neutralising activity; (c) with
CC
     both endotoxin neutralising activity and bactericidal activity for
CC
     Pseudomonas aeruginosa; (d) a hybrid peptide with endotoxin neutralising
CC
     activity and bactericidal activity, the peptide having at least 1 amino
CC
     acid sequence of a peptide with endotoxin neutralising activity combined
CC
     with at least 1 different amino acid sequence of a peptide that has
CC
     bactericidal activity; and (e) a prosthetic device which has a sufficient
CC
     amount of BP attached to the surface to inhibit bacterial growth. The
CC
     peptides of the invention are used in treating bacterial infection such
CC
     as Pseudomonas strains e.g. for P. aeruginosa at 10-7 to 10-9 M, and
CC
     Escherichia coli. The peptides are also used to treat endotoxin shock.
CC
     The present sequence represents a peptide derived from human neutrophil
CC
     granule bactericidal protein from an example of the present invention
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                              0;
             3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            8 NIK 10
Qу
              | | | |
            3 NIK 5
Db
RESULT 56
AAW79785
     AAW79785 standard; peptide; 11 AA.
TD
XX
     AAW79785;
AC
XX
     10-DEC-1998
                  (first entry)
DT
XX
     Amino acids 300-314 of a human mutated activated protein C (APC).
DE
XX
     Human; activated protein C; APC; blood anticoagulant; protein C; PC;
KW
     protein S; PS; inhibit; thrombosis; treat; prevent.
KW
XX
OS
     Synthetic.
OS
     Homo sapiens.
XX
PN
     WO9844000-A1.
XX
     08-OCT-1998.
PD
XX
```

```
PF
     18-MAR-1998;
                    98WO-SE000490.
XX
PR
     03-APR-1997;
                    97SE-00001228.
XX
     (TACT-) TAC THROMBOSIS & COAGULATION AB.
PΑ
XX
PI
     Dahlbaeck B;
XX
     WPI; 1998-542633/46.
DR
XX
     New variant blood coagulation component with enhanced activity - useful
PT
     to inhibit thrombosis and in the treatment of blood coagulation
PT
PT
     disorders.
XX
PS
     Claim 9; Page 47; 37pp; English.
XX
     The present sequence represents a varaint of amino acids 300-314 of human
CC
     activated protein C (APC). This region is essential for proteolytic and
CC
     amidolytic activities, and thus for anticoagulant activity. Introduction
CC
     of mutations in this area could give rise to functional variants with
CC
     enhanced activity. The present sequence has amino acids 303-305 and 308
CC
     missing. and the substitutions E307D and A310T, compared to wild type
CC
     (see AAW79784). The specification describes a new variant blood
CC
     coagulation component that is substantially homologous to a wild-type
CC
     blood coagulation component, capable of expressing enhanced anticoagulant
CC
     activity in the protein C-anticoagulant system, and a variant of protein
CC
     C (PC), APC or protein S (PS). The variants can be used to inhibit blood
CC
CC
     coagulation, particularly thrombosis, or to treat or prevent blood
CC
     coaqulation disorders such as thrombosis
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
             3; Conservative
                                 0; Mismatches
  Matches
            6 KRN 8
Qу
              111
            8 KRN 10
Db
RESULT 57
AAW84064
     AAW84064 standard; peptide; 11 AA.
XX
AC
     AAW84064;
XX
     15-MAR-1999 (first entry)
DT
XX
DE
     Human V3 loop HIV receptor P60/nucleolin peptide (peak 19).
XX
     HIV receptor; V3 loop; human immunodeficiency virus; retrovirus;
KW
     P60 protein; P95 protein; nucleolin; infection; therapy; diagnosis.
KW
XX
OS
     Homo sapiens.
XX
PN
     WO9840480-A1.
```

```
XX
     17-SEP-1998.
PD
XX
     12-MAR-1998;
PF
                    98WO-EP001409.
XX
     12-MAR-1997;
                    97US-0040969P.
PR
XX
     (INSP ) INST PASTEUR.
PA
     (CNRS ) CENT NAT RECH SCI.
PΑ
XX
     Hovanessian A, Callebaut C, Krust B, Jacotot E, Muller S;
PI
PΙ
     Briand J, Guichard G;
XX
     WPI; 1999-034588/03.
DR
XX
     New isolated V3 loop HIV receptor - comprises P95/nucleolin, P40/PHAPII
PT
     and P30/PHAPI proteins, used to develop products for the treatment and
PT
     prevention of HIV infection.
PT
XX
     Example 9; Page 160; 267pp; English.
PS
XX
     This peptide was isolated from the novel V3 loop HIV receptor P60 protein
CC
     by endo-lysine-C digestion. Sequencing revealed identity with amino acids
CC
     635-644 of human nucleolin. The V3 loop HIV receptor, identified as a
CC
     cell surface receptor on e.g. CD4+ T cell line CEM, consists of an
CC
     association of 3 proteins, named P95, P40 and P30 (see AAW84052-54), that
CC
     are implicated as cofactors in the process of HIV entry into cells.
CC
     Microsequencing of endo-lysine-C- generated peptides showed these 3
CC
     proteins to be nucleolin, PHAPI and PHAPII, respectively. P60 is a
CC
CC
     partial degradation product of P95. The invention provides methods,
CC
     products and compositions for the treatment, diagnosis and prevention of
CC
     HIV infection
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
  Matches
            3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                     Gaps
            4 KPK 6
Qу
              III
Db
            8 KPK 10
RESULT 58
AAY03664
     AAY03664 standard; peptide; 11 AA.
ID
XX
     AAY03664;
AC
XX
     07-JUN-1999 (first entry)
DT
XX
     Amino acid sequence of the malaria (M) string CTL epitope Tr42/43.
DE
XX
KW
     CD8+ T-cell; immune response; antigen; priming composition; CTL; epitope;
     cytotoxic T lymphocyte; boosting; poxvirus vector; PVV; pathogen; tumour;
KW
KW
     malaria; parasite; P. falciparum; viral; bacterial; parasitic; cancer;
```

```
melanoma; HIV; breast; colon; vaccination.
KW
XX
OS
     Plasmodium falciparum.
XX
ΡN
     WO9856919-A2.
XX
PD
     17-DEC-1998.
XX
                    98WO-GB001681.
PF
     09-JUN-1998;
XX
PR
     09-JUN-1997;
                    97GB-00011957.
XX
     (ISIS-) ISIS INNOVATION LTD.
PΑ
XX
     Mcmichael AJ, Hill AVS, Gilbert SC, Schneider J, Plebanski M;
PΙ
     Hanke T. Smith GL, Blanchard T;
ΡI
XX
     WPI; 1999-070325/06.
DR
DR
     N-PSDB; AAX29204.
XX
PT
     Generating CD8-positive T cell response to target antigen using
     recombinant poxvirus - for treating or preventing malaria and HIV
PT
     infection, also epitope strings from Plasmodium and HIV.
PT
XX
PS
     Claim 38; Page 18; 85pp; English.
XX
     The invention relates to methods and reagents for generating a protective
CC
     CD8+ T-cell immune response against at least one target antigen. The kits
CC
     of the invention comprises (i) as priming composition, a source of one or
CC
CC
     more CD8+ T-cell [cytotoxic T lymphocytes-(CTL)] epitopes of the target
CC
     antigen, plus a carrier and (ii) as boosting composition a source of CTL
     epitopes, with at least one CTL epitope the same as used in (i), with
CC
CC
     this source being a non-replicating or replication-impaired recombinant
CC
     poxvirus vector (PVV) plus a carrier. If the source of CTL epitopes in
CC
     (i) is a viral vector, then the vector in (ii) is from a different virus.
     The kits are used to generate an immune response (prophylactic or
CC
CC
     therapeutic) against pathogens or tumours, specifically against malaria
CC
     parasites such as P. falciparum, or HIV, and also many other bacterial,
CC
     viral or parasitic pathogens. The kits are also used for protective
     response against melanoma and cancer of breast or colon, and generally
CC
     wherever a strong CD8+ response is protective. The boosting composition
CC
CC
     may be used alone to boost a naturally primed response against malaria.
CC
     The specified PVV provide an excellent booster effect, better than that
     from wild-type poxvirus, resulting in complete rather than partial
CC
CC
     protection against sporozoite challenge. Also PVV are safer to use than
CC
     wild-type virus. Sequences AAY03661-680 represent CTL peptide epitopes of
CC
     the malaria (M) string
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3: Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
            1 ASK 3
Qу
              \mathbf{I}
Db
            1 ASK 3
```

```
RESULT 59
AAY42674
     AAY42674 standard; peptide; 11 AA.
XX
AC
     AAY42674;
XX
     17-JAN-2000
                  (first entry)
DT
XX
DΕ
     HHV-6 variant A derived peptide epitope.
XX
KW
     Human herpes virus-6; HHV-6; infection; immunological; MIEP; epitope;
KW
     major immediate early protein.
XX
OS
     Synthetic.
OS
     Human herpesvirus 6.
XX
PN
     WO9949086-A1.
XX
PD
     30-SEP-1999.
XX
PF
     26-MAR-1999;
                    99WO-US006921.
XX
                    98US-0079379P.
PR
     26-MAR-1998;
     23-MAR-1999;
                    99US-00274938.
PR
XX
PΑ
     (CARR/) CARRIGAN D R.
     (KEHL/) KEHL K K.
PΆ
XX
PΙ
     Carrigan DR,
                   Kehl KK;
XX
DR
     WPI; 1999-601224/51.
XX
PT
     Methods for the rapid detection of human herpes virus 6 variants A and B
     utilizing antibodies raised against synthetic peptides.
PT
XX
     Claim 9; Page 41; 58pp; English.
PS
XX
     The invention relates to a method for detecting human herpes virus (HHV)-
CC
     6 infection that comprises contacting host cells with immunological
CC
     reagents specific for an epitope of HHV-6 variant A and/or B major
CC
     immediate early protein (MIEP). HHV-6 peptides for raising an
CC
     immunological reagent that binds specifically to an epitope of: (a) HHV-6
CC
     variant A and not B MIEP; or (b) HHV-6 variant A and B MIEP are also
CC
     provided. The peptides are useful as immunological reagents, e.g.
CC
     hyperimmune sera. Monoclonal antibodies and recombinant DNA-derived
CC
     single chain fragment variables (ScFv) may be useful for detecting HHV-6
CC
     infection when raised against specific epitopes of the HHV-6 MIEP. The
CC
     methods provide a rapid culture procedure having a high level of
CC
     sensitivity and specificity. The methods also have shortened turnaround
CC
     time (compared to other known methods, e.g. the isolation of the virus in
CC
CC
     cell culture, the detection of virus DNA in an acellular specimen by PCR
     or positive immunohistochemical staining) and can be easily implemented
CC
CC
     by a diagnostic laboratory
XX
```

SQ

Sequence 11 AA;

```
27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
 Matches
             3; Conservative
                                0; Mismatches
                                                       Indels
                                                                      Gaps
                                                                              0;
            4 KPK 6
Qу
              III
            9 KPK 11
Db
RESULT 60
AAY81921
     AAY81921 standard; peptide; 11 AA.
ID
XX
AC
     AAY81921;
XX
     23-JUN-2000 (first entry)
DT
XX
     Asparagine protease recognition peptide.
DE
XX
     Asparagine protease recognition peptide; protease assay; enzyme cleavage;
KW
KW
     plant protease.
XX
OS
     Glycine max.
XX
PΝ
     JP3015886-B1.
XX
PD
     06-MAR-2000.
XX
     04-NOV-1998;
                    98JP-00327536.
PF
XX
PR
     04-NOV-1998;
                    98JP-00327536.
XX
     (NORQ ) NORINSUISANSHO SHOKUHIN SOGO.
PA
XX
     WPI; 2000-342275/30.
DR
XX
     Quick assay method of specific end protease activity of asparagine
PT
     residue of plant origin, involves distributing 7-methoxy phosphorous 4-yl
PT
     -acetyl and 2,4-dinitrophenyl group to N-terminal side and C-terminal
PT
PT
     side.
XX
     Example 2; Page 9; 11pp; Japanese.
PS
XX
     This sequence represents a peptide recognised and cleaved by asparagine
CC
     protease. The invention relates to a quick assay method for asparagine
CC
     protease of plant origin. The asparagine protease specifically recognises
CC
     asparagine residues and cleaves proteins at the C-terminal end of the
CC
     asparagine residue. The assay uses a fluorescence substrate (which has
CC
     quenching properties) which distributes a 7-methoxy coumarin-4-yl-acetyl
CC
     group to the amino group of the glycine residue at the N-terminal side,
CC
     and a 2,4-dinitrophenyl group to the C-terminal of an amino acid
CC
     sequence. The fluorescence caused by the fluorescence substrate is not
CC
     connected to the asparagine residue and can be measured after cleavage by
CC
     the protease. The method is useful for assaying asparagine proteases of
CC
     plant origin. The activity of the protease can be determined within a
CC
     short time period and the enzyme activity can be measured with high
CC
```

```
when materials which inhibit other protease and fluorescence are included
CC
CC
     in the sample
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 3;
                                   Pred. No. 1e+04;
  Best Local Similarity
                          100.0%;
                                0; Mismatches
                                                                               0;
             3; Conservative
                                                    0; Indels
                                                                  0;
                                                                      Gaps
  Matches
            7 RNI 9
Qу
              \Pi\Pi
            5 RNI 7
Db
RESULT 61
AAY82340
     AAY82340 standard; peptide; 11 AA.
XX
AC
     AAY82340;
XX
     22-JUN-2000 (first entry)
DT
XX
     Humanised anti-CD11a antibody light chain CDR1 SEQ ID NO:13.
DE
XX
     Humanised; anti-CD11a; antibody; anti-inflammatory; immunosuppressant;
KW
     antitumour; antiviral; inflammation; immunological response; LFA-1;
KW
     lymphocyte function-associated antigen-1; psoriasis; rhinitis; eczema;
KW
     inflammatory bowel disease; systemic lupus erythematosus; leukaemia;
KW
     viral infection; transplant rejection; graft rejection.
KW
XX
os
     Homo sapiens.
OS
     Mus sp.
XX
ΡN
     US6037454-A.
XX
     14-MAR-2000.
PD
XX
                    97US-00974899.
PF
     20-NOV-1997;
XX
     27-NOV-1996;
                    96US-0031971P.
PR
XX
     (GETH ) GENENTECH INC.
PA
XX
PI
     Jardieu PM, Presta LG;
XX
     WPI; 2000-282241/24.
DR
XX
     New humanized anti-CD11a antibody, useful for treating or preventing e.g.
PТ
PT
     inflammation and transplant rejection, contains human heavy variable
PT
     region complementarity determining regions.
XX
     Claim 4; Col 57-58; 38pp; English.
PS
XX
CC
     The present invention describes a humanised anti-CD11a antibody (Ab) that
CC
     binds specifically to the human CD11a I-domain. The Ab has anti-
     inflammatory, immunosuppressant, antitumour and antiviral activities. The
CC
```

sensitivity using the fluorescence substrate. The procedure is quick even

CC

```
Ab blocks lymphocyte function-associated antigen (LFA-1) which is
CC
     involved in leucocyte adhesion associated with inflammatory and
CC
     immunological responses. The Ab are used: (i) optionally when coupled to
CC
     a cytotoxin, to treat or prevent disorders mediated by lymphocyte
CC
CC
     function-associated antigen-1 (LFA-1; CD11a/CD18), e.g. psoriasis,
     inflammatory bowel disease, eczema, systemic lupus erythematosus,
CC
     rhinitis, leukaemia, viral infections and many others, also for
CC
     inhibiting graft rejection; (ii) when labeled, to detect CD11a; (iii) for
CC
     tumour pretreatment; (iv) for delivery of enzymes that convert prodrugs
CC
     to active anticancer agent; and (v) for affinity chromatography. The Ab
CC
     retain about the same activity in adhesion and mixed lymphocyte response
CC
     assays as the murine antibodies from which they are derived. The murine
CC
     anti-CD11a antibody MHM24 has IC50 0.09 nM for preventing adhesion
CC
     between Jurkat cells (expressing LFA-1) and normal epidermal
CC
     keratinocytes that express ICAM-1 (intracellular adhesion molecule-1).
CC
     The fully humanized version of MHM24 had IC50 0.13 nM. The present
CC
     sequence represents the light chain variable region CDR1 of the humanised
CC
CC
     anti-CD11a Ab
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             3; Conservative
            1 ASK 3
Qу
              111
Db
            2 ASK 4
RESULT 62
AAY85087
     AAY85087 standard; peptide; 11 AA.
ID
XX
AC
     AAY85087;
XX
     06-AUG-2003
                  (revised)
DT
DT
     20-JUN-2000
                  (first entry)
XX
     HBV surface antigen annexin binding epitope peptide #6.
DE
XX
KW
     Annexin binding epitope; hepatitis B virus; hepatitis D virus; influenza;
KW
     benzodiazepine; binding inhibitor; cytomegalovirus; viral infection;
KW
     benzothiazepine.
XX
OS
     Hepatitis B virus.
XX
                     Location/Qualifiers
FH
     Key
FT
     Modified-site
FT
                     /note= "Biotinylated lysine"
XX
PN
     WO200012547-A2.
XX
PD
     09-MAR-2000.
XX
PF
     25-AUG-1999;
                    99WO-EP006231.
XX
```

```
01-SEP-1998;
                    98EP-00870186.
PR
     29-MAR-1999;
                    99EP-00870062.
PR
XX
PA
     (INNO-) INNOGENETICS NV.
XX
PI
     Depla E, Moereels H, Maertens G;
XX
     WPI; 2000-256586/22.
DR
XX
     New benzodiazepine and benzothiazepine derivatives, useful for treating
PT
     or preventing viral infection, contain peptides that include an annexin-
PT
PT
     binding epitope.
XX
     Claim 8; Page 35; 60pp; English.
PS
XX
     This sequence represents a peptide derived from the surface antigen of
CC
     hepatitis b virus, it contains an annexin binding epitope. The invention
CC
     relates to benzodiazepine derivatives derivatised with at least one
CC
     peptide containing an annexin binding epitope of an annexin binding
CC
     protein (e.g. the present sequence) or its fragment. Annexins are calcium
CC
CC
     dependent phospholipid binding proteins. 1,4-benzodiazepines and 1,4-
     benzothiazepines can bind to annexin V, as can the hepatitis B small
CC
     surface antigen. The compositions of the invention bind to cell surface
CC
CC
     annexins, and inhibit the binding and entry of viruses to the cell. The
     benzodiazepine derivatives and some related known compounds, are used to
CC
     treat or prevent diseases involving protein interactions with annexins,
CC
     particularly viral infections and specifically hepatitis B and/or D,
CC
     cytomegalovirus or influenza or to screen for compounds that block
CC
     binding between annexins and their interacting proteins. (Updated on 06-
CC
CC
     AUG-2003 to correct OS field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                   0; Indels
                                                                              0;
  Matches
             3; Conservative
                               0; Mismatches
                                                                      Gaps
            1 ASK 3
Qу
              | | | |
            9 ASK 11
Db
RESULT 63
AAY88529
     AAY88529 standard; peptide; 11 AA.
XX
AC
     AAY88529;
XX
     07-AUG-2000 (first entry)
DT
XX
     NCAM Igl binding peptide D4.
DE
XX
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
```

XX OS Synthetic. XXWO200018801-A2. ΡN XX 06-APR-2000. PD XX 99WO-DK000500. 23-SEP-1999; PFXX 29-SEP-1998; 98DK-00001232. PR 29-APR-1999; 99DK-00000592. PR XX (RONN/) RONN L C B. PΑ (BOCK/) BOCK E. PΑ (HOLM/) HOLM A. PAPA (OLSE/) OLSEN M. PA (OSTE/) OSTERGAARD S. PΑ (JENS/) JENSEN P H. (POUL/) POULSEN F M. PA (SORO/) SOROKA V. PA (RALE/) RALETS I. PA (BERE/) BEREZIN V. PΑ XX Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH; PIPoulsen FM, Soroka V, Ralets I, Berezin V; PΙ XX DR WPI; 2000-293111/25. XX PTCompositions that bind neural cell adhesion molecules useful for treating disorders of the nervous system and muscles e.g. Alzheimer's and PTParkinson's diseases. PTXX Claim 20; Page 82; 119pp; English. PS XX Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. CC NCAM is found in three forms, two of which are transmembrane forms, while CC CC the third is attached via a lipid anchor to the cell membrane. All three CC NCAM forms have an extracellular structure consisting five immunoglobulin domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-CC terminal. The present sequence represents a peptide which binds to the CC CC NCAM Iq1 domain. The peptide can be used in a compound which binds to NCAM-Iq1/Iq2 domains, and is capable of stimulating or promoting neurite CC outgrowth from NCAM presenting cells, and is also capable of promoting CC the proliferation of NCAM presenting cells. The compound may be used in CC the treatment of normal, degenerated or damaged NCAM presenting cells. CC The compound may in particular be used to treat diseases of the central CC and peripheral nervous systems such as post operative nerve damage, CC traumatic nerve damage, impaired myelination of nerve fibres, conditions CC resulting from a stroke, Parkinson's disease, Alzheimer's disease, CC dementias, sclerosis, nerve degeneration associated with diabetes CC mellitus, disorders affecting the circadian clock or neuro-muscular CC transmission and schizophrenia. Conditions affecting the muscles may also CC CC be treated with the compound, such as conditions associated with impaired CC function of neuromuscular connections (e.g. genetic or traumatic shock or CC traumatic atrophic muscle disorders). Conditions of the gonads, pancreas CC (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart, CC liver and bowel may also be treated using the compound. The compound is

```
CC
     learn, and to stimulate the memory of a subject
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                                                0; Indels
                                                                 0; Gaps
                                                                              0;
          3; Conservative
                                0; Mismatches
  Matches
            4 KPK 6
Qу
              9 KPK 11
Db
RESULT 64
AAY88563
     AAY88563 standard; peptide; 11 AA.
ID
XX
AC
     AAY88563;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
     NCAM Iq1 binding peptide D4 used as a control peptide.
XX
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
ΚW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
ΚW
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
     Synthetic.
OS
XX
     WO200018801-A2.
PN
XX
     06-APR-2000.
PD
XX
                    99WO-DK000500.
     23-SEP-1999;
PF
XX
                    98DK-00001232.
PR
     29-SEP-1998;
                    99DK-00000592.
PR
     29-APR-1999;
XX
     (RONN/) RONN L C B.
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
PA
PA
     (OSTE/) OSTERGAARD S.
     (JENS/) JENSEN P H.
PA
     (POUL/) POULSEN F M.
PA
     (SORO/) SOROKA V.
PA .
     (RALE/) RALETS I.
PA
PΑ
     (BERE/) BEREZIN V.
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PΙ
XX
     WPI; 2000-293111/25.
DR
XX
```

used in a prosthetic nerve guide, and also to stimulate the ability to

CC

```
Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
PT
     Parkinson's diseases.
PT
XX
     Example 5; Fig 7; 119pp; English.
PS
XX
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-
CC
     terminal. The invention relates to a compound containing a peptide which
CC
     binds to the NCAM Iq1 domain. The compound binds to NCAM-Iq1/Iq2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
     presenting cells, and is also capable of promoting the proliferation of
CC
     NCAM presenting cells. The present sequence represents a control peptide
CC
     used in the identification of those binding peptides which can be used in
CC
     the compound. The compound may be used in the treatment of normal,
CC
     degenerated or damaged NCAM presenting cells. The compound may in
CC
     particular be used to treat diseases of the central and peripheral
CC
     nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
CC
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
CC
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
CC
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
     guide, and also to stimulate the ability to learn, and to stimulate the
CC
CC
     memory of a subject
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches
             3; Conservative
            4 KPK 6
QУ
              111
Db
            9 KPK 11
RESULT 65
AAY88560
     AAY88560 standard; peptide; 11 AA.
ID
XX
     AAY88560;
AC
XX
DT
     07-AUG-2000 (first entry)
XX
     NCAM Ig1 binding peptide 3Cscr used as a control peptide.
DE
XX
     NCAM; neural cell adhesion molecule; Igl; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
```

KW

impaired myelination; stroke; Parkinson's disease; memory; schizophrenia; KW Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis; KW treatment; prosthetic nerve guide; treatment; nervous system. KW XX os Synthetic. XXWO200018801-A2. PNXX 06-APR-2000. PDXX 23-SEP-1999; 99WO-DK000500. PF XX 98DK-00001232. 29-SEP-1998; PR 29-APR-1999; 99DK-00000592. PR XX (RONN/) RONN L C B. PA (BOCK/) BOCK E. PA PA (HOLM/) HOLM A. (OLSE/) OLSEN M. PA(OSTE/) OSTERGAARD S. PA (JENS/) JENSEN P H. PA (POUL/) POULSEN F M. PA(SORO/) SOROKA V. PA (RALE/) RALETS I. PA (BERE/) BEREZIN V. PΑ XX Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH; PIPΙ Poulsen FM, Soroka V, Ralets I, Berezin V; XX WPI; 2000-293111/25. DR XX PТ Compositions that bind neural cell adhesion molecules useful for treating disorders of the nervous system and muscles e.g. Alzheimer's and PTPTParkinson's diseases. XX Example 5; Fig 7; 119pp; English. PS XX CC Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. NCAM is found in three forms, two of which are transmembrane forms, While CC the third is attached via a lipid anchor to the cell membrane. All three CC NCAM forms have an extracellular structure consisting five immunoglobulin CC domains (Iq domains). The Iq domains are numbered 1 to 5 from the N-CC terminal. The invention relates to a compound containing a peptide which CC binds to the NCAM Ig1 domain. The compound binds to NCAM-Ig1/Ig2 domains, CC and is capable of stimulating or promoting neurite outgrowth from NCAM CC presenting cells, and is also capable of promoting the proliferation of CC NCAM presenting cells. The present sequence represents a control peptide CC used in the identification of those binding peptides which can be used in CC the compound. The compound may be used in the treatment of normal, CC degenerated or damaged NCAM presenting cells. The compound may in CC particular be used to treat diseases of the central and peripheral CC nervous systems such as post operative nerve damage, traumatic nerve CC damage, impaired myelination of nerve fibres, conditions resulting from a CC stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis, CC nerve degeneration associated with diabetes mellitus, disorders affecting CC the circadian clock or neuro-muscular transmission and schizophrenia. CC CC Conditions affecting the muscles may also be treated with the compound,

```
such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
     guide, and also to stimulate the ability to learn, and to stimulate the
CC
CC
     memory of a subject
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3;
                                                    Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                    0; Indels
                                                                      Gaps
                                                                               0;
             3; Conservative
                                0; Mismatches
  Matches
            9 IKA 11
Qy
              111
            8 IKA 10
Db
RESULT 66
AAY88538
     AAY88538 standard; peptide; 11 AA.
ID
XX
AC
     AAY88538;
XX
DT
     07-AUG-2000
                 (first entry)
XX
DE
     NCAM Iql binding peptide #10.
XX
     NCAM; neural cell adhesion molecule; Igl; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
os
     Synthetic.
XX
     WO200018801-A2.
PN
XX
PD
     06-APR-2000.
XX
     23-SEP-1999;
                    99WO-DK000500.
PF
XX
                    98DK-00001232.
     29-SEP-1998;
PR
     29-APR-1999;
                    99DK-00000592.
PR
XX
     (RONN/) RONN L C B.
PA
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
PΑ
     (OSTE/) OSTERGAARD S.
PA
PΑ
     (JENS/) JENSEN P H.
PΑ
     (POUL/) POULSEN F M.
     (SORO/) SOROKA V.
PA
      (RALE/) RALETS I.
PΑ
      (BERE/) BEREZIN V.
PA
XX
```

```
Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PI
XX
     WPI; 2000-293111/25.
DR
XX
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
PT
     Parkinson's diseases.
PT
XX
PS
     Example 4; Page 25; 119pp; English.
XX
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-
CC
     terminal. The present sequence represents a peptide which binds to the
CC
     NCAM Ig1 domain. The peptide can be used in a compound which binds to
CC
     NCAM-Iq1/Iq2 domains, and is capable of stimulating or promoting neurite
CC
     outgrowth from NCAM presenting cells, and is also capable of promoting
CC
     the proliferation of NCAM presenting cells. The compound may be used in
CC
     the treatment of normal, degenerated or damaged NCAM presenting cells.
CC
     The compound may in particular be used to treat diseases of the central
CC
     and peripheral nervous systems such as post operative nerve damage,
CC
     traumatic nerve damage, impaired myelination of nerve fibres, conditions
CC
     resulting from a stroke, Parkinson's disease, Alzheimer's disease,
CC
     dementias, sclerosis, nerve degeneration associated with diabetes
CC
     mellitus, disorders affecting the circadian clock or neuro-muscular
CC
     transmission and schizophrenia. Conditions affecting the muscles may also
CC
     be treated with the compound, such as conditions associated with impaired
CC
     function of neuromuscular connections (e.g. genetic or traumatic shock or
CC
     traumatic atrophic muscle disorders). Conditions of the gonads, pancreas
CC
     (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart,
CC
     liver and bowel may also be treated using the compound. The compound is
CC
     used in a prosthetic nerve guide, and also to stimulate the ability to
CC
     learn, and to stimulate the memory of a subject
CC
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                               0; Mismatches 0; Indels
                                                                 0;
                                                                     Gaps
                                                                              0;
             3; Conservative
  Matches
            6 KRN 8
Qу
              \perp
            2 KRN 4
Db
RESULT 67
AAY99060
     AAY99060 standard; peptide; 11 AA.
XX
AC
     AAY99060;
XX
DT
     07-AUG-2000 (first entry)
XX
     HLA class II binding antigen epitope peptide #249.
DE
```

XX
KW Human leucocyte antigen; HLA class II; antigen epitope; pharmaceutical;
KW immune response; chronic viral disease; cancer; autoimmune disease;
KW rheumatoid arthritis; multiple sclerosis; myasthenia gravis; AIDS;
KW allograft rejection; allergy; lyme disease; hepatitis; prostate cancer;
KW glomerulonephritis; food hypersensitivity; malaria.

XX
OS Clostridium tetani.

PN W09961916-A1.

PD 02-DEC-1999.

XX

XX

XX

XX

PR XX PA

XX

DR

XX PT

PT XX

PS XX

CC

CC XX

PF 28-MAY-1999; 99WO-US012066.

29-MAY-1998; 98US-0087192P.

(EPIM-) EPIMMUNE INC.

PI Sette A, Southwood S, Sidney J; XX

WPI; 2000-097143/08.

New compositions containing immunogenic peptide epitopes for various HLA class II DR molecules useful for inducing helper T cell response.

Claim 1; Page 44; 60pp; English.

The present invention relates to a new pharmaceutical composition comprising a unit dose form of a peptide, or analogue, comprising an epitope selected from those represented by peptides AAY98812-Y99339 which are derived from various antigens for various human leucocyte antigen class DR molecules, representative of the world wide population. The peptide/analogue binds to an HLA class II molecule at an IC-50 of less than or equal to 1,000 nM. The pharmaceutical can be used to induce a helper T cell response. The pharmaceutical focuses the immune response towards selected determinants and could therefore be used in cases of chronic viral diseases and cancer. Examples of diseases that can be treated using the peptide containing pharmaceutical include autoimmune diseases (rheumatoid arthritis, multiple sclerosis, and myasthenia gravis), allograft rejection, allergies, lyme disease, hepatitis, poststreptococcal endocarditis or glomerulonephritis and food hypersensitivities. The peptide epitopes can be used to enhance immune responses against other immunogens administered with the peptides. Diseases which can be treated using immunogenic mixtures include prostate cancer, hepatitis B, hepatitis C, AIDS, renal carcinoma, cervical carcinoma, lymphoma, and condyloma acuminatum. The peptides may also be used to make monoclonal antibodies useful as potential diagnostic or therapeutic agents. The peptides may also be useful as diagnostic reagents, for example, to determine the susceptibility of an individual to a treatment regimen. Also, the peptides may be used to predict which individuals will be at substantial risk of developing chronic infection. The selection of appropriate T and B cell epitopes should allow the development of epitope based vaccines particularly towards conserved epitopes of pathogens which are characterized by high sequence variability such as HIV, HCV and Malaria

```
Length 11;
  Query Match
                          27.3%; Score 3; DB 3;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                               0;
                                                                  0; Gaps
             3; Conservative
                                0; Mismatches
                                                    0;
                                                       Indels
            9 IKA 11
Qу
              111
            6 IKA 8
Db
RESULT 68
AAY78451
     AAY78451 standard; peptide; 11 AA.
ID
XX
AC
     AAY78451;
XX
DT
     09-MAY-2000 (first entry)
XX
DΕ
     Human growth hormone variant peptide sequence #22.
XX
KW
     Human growth hormone; hGH; prolactin; placental lactogen; modification;
KW
     mutagenesis.
XX
os
     Homo sapiens.
OS
     Synthetic.
XX
     US6013478-A.
PN
XX
     11-JAN-2000.
PD
XX
                    98US-00104036.
PF
     24-JUN-1998;
XX
     28-OCT-1988;
                    88US-00264611.
PR
                    89US-00428066.
PR
     26-OCT-1989;
                    92US-00875204.
     27-APR-1992;
PR
                    92US-00960227.
     13-OCT-1992;
PR
PR
     02-FEB-1994;
                    94US-00190723.
                    95US-00483039.
PR
     06-JUN-1995;
     30-JUN-1997;
                    97US-00903398.
PR
XX
     (GETH ) GENENTECH INC.
PA
XX
     Wells JA, Cunningham BC;
PI
XX
     WPI; 2000-159873/14.
DR
XX
     Recombinant production of variant polypeptides, e.g. growth hormone
PT
     variants with altered receptor specificity, using cells transformed with
PT
     DNA selected by scanning mutagenesis in at least one peptide domain.
PT
XX
PS
     Disclosure; Col 26; 83pp; English.
XX
     The present invention describes the production of a polypeptide variant
CC
     (I) comprising segment substituted and residue substituted growth
CC
     hormone, prolactin or placental lactogens. The method is particularly
CC
     used to produce variants of growth hormone (GH), prolactin or placental
CC
```

SQ

Sequence 11 AA;

```
lactogen, but may also be applied to receptors, interferons, and colony-
CC
     stimulating factors. A particular application is the production of human
CC
CC
     GH variants with altered (decreased or increased) binding interaction
     with the somatogenic receptor, i.e. compounds useful as human GH
CC
     (ant)agonists and which may have higher potency for stimulating other
CC
     human GH receptors, and as standards or tracers in immunoassays for human
CC
     GH. This method of DNA selection identifies the biologically active
CC
     residues in active domains, including those critical for interaction with
CC
     different targets. The present sequence represents a human GH variant
CC
CC
     peptide sequence, which is used in the exemplification of the present
CC
     invention
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                              0;
            3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                      Gaps
            2 SKK 4
Qу
              7 SKK 9
Db
RESULT 69
AAY78449
     AAY78449 standard; peptide; 11 AA.
ID
XX
AC
     AAY78449;
XX
DT
     09-MAY-2000 (first entry)
XX
DE
     Human growth hormone variant peptide sequence #4.20.
XX
     Human growth hormone; hGH; prolactin; placental lactogen; modification;
KW
KW
     mutagenesis.
XX
OS
     Homo sapiens.
OS
     Synthetic.
XX
PN
     US6013478-A.
XX
PD
     11-JAN-2000.
XX
                    98US-00104036.
PF
     24-JUN-1998;
XX
                    88US-00264611.
     28-OCT-1988;
PR
PR
     26-OCT-1989;
                    89US-00428066.
                    92US-00875204.
PR
     27-APR-1992;
                    92US-00960227.
PR
     13-OCT-1992;
PR
     02-FEB-1994;
                    94US-00190723.
PR
     06-JUN-1995;
                    95US-00483039.
PR
     30-JUN-1997;
                    97US-00903398.
XX
PA
     (GETH ) GENENTECH INC.
XX
PI
     Wells JA, Cunningham BC;
XX
```

```
DR
    WPI; 2000-159873/14.
XX
     Recombinant production of variant polypeptides, e.g. growth hormone
PT
     variants with altered receptor specificity, using cells transformed with
PT
     DNA selected by scanning mutagenesis in at least one peptide domain.
PT
XX
     Disclosure; Col 26; 83pp; English.
PS
XX
     The present invention describes the production of a polypeptide variant
CC
     (I) comprising segment substituted and residue substituted growth
CC
     hormone, prolactin or placental lactogens. The method is particularly
CC
     used to produce variants of growth hormone (GH), prolactin or placental
CC
     lactogen, but may also be applied to receptors, interferons, and colony-
CC
     stimulating factors. A particular application is the production of human
CC
     GH variants with altered (decreased or increased) binding interaction
CC
     with the somatogenic receptor, i.e. compounds useful as human GH
CC
     (ant)agonists and which may have higher potency for stimulating other
CC
     human GH receptors, and as standards or tracers in immunoassays for human
CC
     GH. This method of DNA selection identifies the biologically active
CC
     residues in active domains, including those critical for interaction with
CC
     different targets. The present sequence represents a human GH variant
CC
     peptide sequence, which is used in the exemplification of the present
CC
CC
     invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%;
                                  Score 3; DB 3;
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                                 0; Mismatches
  Matches
             3; Conservative
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            2 SKK 4
Qу
              III
            7 SKK 9
Db
RESULT 70
AAY90160
     AAY90160 standard; peptide; 11 AA.
ID
XX
AC
     AAY90160;
XX
DT
     06-AUG-2003
                  (revised)
                  (first entry)
     21-SEP-2000
DT
XX
     UPAR targeting sequence with spacers #10.
DE
XX
     Ligand epitope; UPAR; urokinase-type plasminogen activator receptor;
KW
     adenovirus; hexon HVR5 loop; hexon HI loop; peripheral artery disease;
KW
     recombinant adenovirus vector; tumour; restenosis; gene therapy; asthma;
KW
     smooth muscle cell proliferation inhibitor; coronary artery disease;
KW
     obesity; neurodegenerative disease; infection; autoimmune disease; HIV;
KW
KW
     thrombosis; diabetes; tropism-modified virus.
XX
OS
     Synthetic.
XX
     WO200012738-A1.
PN
XX
```

```
09-MAR-2000.
PD
XX
PF
     27-AUG-1999;
                    99WO-IB001524.
XX
     27-AUG-1998;
                    98US-0098028P.
PR
XX
     (AVET ) AVENTIS PHARMA SA.
PΑ
XX
     Vigne E, Dedieu J, Latta M, Yeh P, Perricaudet M;
PI
XX
     WPI; 2000-256653/22.
DR
XX
     Urokinase-type plasminogen activator receptor (UPAR)-targeted adenovirus
PΤ
     vectors having modified hexon HRV5 and HI loops and modified fiber
PТ
     proteins useful for targeted gene therapy to treat cancer or restenosis.
PT
XX
     Claim 15; Page 69; 128pp; English.
PS
XX
     This sequence represents a targeting sequence for UPAR, and is flanked by
CC
     linkers. The invention relates to an adenovirus from which at least a
CC
     part of the hexon HVR5 or HI loop is replaced with a binding peptide, or
CC
     targeting sequence, flanked by connecting amino acid spacers, to
CC
CC
     functionally display its binding specificity at the capsid surface. The
     invention also relates to a recombinant adenovirus vector where a binding
CC
     peptide, or targeting sequence, is connected to the C-terminus of the
CC
     fiber by a connecting spacer, or linker, so as to functionally display
CC
CC
     its binding specificity at the capsid surface. The adenovirus or
CC
     recombinant adenovirus vector can be used to preferentially express a
CC
     gene in a target cell, especially a cell that expresses a UPAR. The
     targeted adenovirus vector preferably comprises a heterologous gene
CC
     encoding a gene for treatment of a tumour or restenosis. The targeted
CC
CC
     adenovirus vector is useful for gene therapy treatment of a disease, and
     for manufacturing a medicine used in gene therapy treatment of a disease.
CC
     The viruses can also be used to inhibit smooth muscle cell proliferation,
CC
     to treat peripheral artery diseases, coronary artery diseases, obesity,
CC
CC
     neurodegenerative diseases, infections, autoimmune diseases, asthma, HIV,
     thrombosis, and diabetes. The viruses are particularly targeted against a
CC
     urokinase-type plasminogen activator receptor (UPAR). The adenoviruses
CC
     are tropism-modified without adversely impacting productivity of the
CC
CC
     vectors. (Updated on 06-AUG-2003 to correct OS field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
             3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
  Matches
            2 SKK 4
Qу
              \mathbf{I}
            2 SKK 4
Db
RESULT 71
AAY87899
ID
     AAY87899 standard; protein; 11 AA.
XX
AC
     AAY87899;
```

DT06-OCT-2000 (first entry) XX M. tuberculosis antigen TB64 N-terminal fragment. DEXX Tuberculosis; TB; antigen; vaccine; diagnosis; somatic; tuberculostatic; KWinfection; interferon-gamma; IFN-gamma; protective immunity; therapy; KW delayed type hypersensitivity response; TB64. KW XX OS Mycobacterium tuberculosis. XX WO200021983-A2. PNXX PD20-APR-2000. XX 08-OCT-1999; 99WO-DK000538. PFXX 98DK-00001281. PR 08-OCT-1998; 99US-0116673P. PR 21-JAN-1999; XX (STAT-) STATENS SERUM INST. PA XX Andersen P, Weldingh K, Hansen CV, Florio W, Okkels LMM; PΙ Skjot RLV, Rosenkrands I; PΙ XX DR WPI; 2000-317931/27. XX PTNovel polypeptide of somatic protein extract useful as vaccine against virulent Mycobacterium infection, isolated from cell wall, cell membrane PTPTand cytosol. XX Example 3a; Page 115; 126pp; English. PS XX This invention describes a novel polypeptide (PP) of somatic proteins CC extract (I) which have tuberculostatic activity. (I) or their subsequence CC has at least one of the following properties: (a) the PP induces an in CC vitro recall response, or an in vitro response, during primary infection CC with virulent Mycobacterium, determined by a release of interferon (IFN)-CC gamma, (b) PP induces a protective immunity, determined by vaccinating an CC animal with PP and an adjuvant, three times at two weeks intervals, (c) CC PP induces an in vitro response, or in vitro recall response, determined CC by release of IFN-gamma of at least 1000 pg/ml or 500 pg/ml, CC respectively, from Peripheral Blood Mononuclear Cells (PBMC) withdrawn CC from TB patients, or PPD positive individuals, 6 months after diagnosis, CC (d) PP induces a specific antibody response in a TB patient, as CC determined by enzyme linked immunosorbent assay (ELISA) technique or a CC western blot, (e) PP induces a positive delayed type hypersensitivity CC (DTH) response, determined by intradermal injection. (I) and (II) are CC useful in preparing a prophylactic or therapeutic medicine as a vaccine CC for induction of a protective or generation of an immune response in a CC mammal against infection with a virulent Mycobacterium. (I) and (II) are CCalso useful as diagnostic reagent for the diagnosis of a virulent CC Mycobacterium infection. The vaccine of the invention induces efficient CC immunological memory, providing long term protection against TB. This CC CC sequence represents a Microbacterium tuberculosis TB64 antigen N-terminal CC fragment described in the invention

XX

XX

```
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
                                                                              0;
            3; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
            4 KPK 6
Qу
              | | |
            5 KPK 7
Db
RESULT 72
AAY81884
ID
     AAY81884 standard; peptide; 11 AA.
XX
AC
     AAY81884;
XX
     21-JUN-2000 (first entry)
DT
XX
     Yeast SAH1 protein fragment.
DE
XX
     Alpha-lactalbumin; protein analysis; protein mass spectrometric analysis;
KW
     capture reagent; protein-reactive group; enzyme; protein identification;
KW
     marker identification; disease marker; enzyme-deficiency disorder;
KW
     birth defect; lysosomal storage disease; diagnosis; SAH1.
KW
XX
OS
     Saccharomyces sp.
XX
PN
     WO200011208-A1.
XX
PD
     02-MAR-2000.
XX
PF
     25-AUG-1999;
                    99WO-US019415.
XX
PR
     25-AUG-1998;
                    98US-0097788P.
     03-SEP-1998;
                    98US-0099113P.
PR
XX
     (UNIW ) UNIV WASHINGTON.
PA
XX
PΙ
     Aebersold RH,
                    Gelb MH, Gygi SP, Scott CR, Turecek F, Gerber SA;
PΙ
     Rist B;
XX
     WPI; 2000-237662/20.
DR
XX
     Reagent for mass spectrometric analysis of proteins, e.g. for diagnosing
PT
     enzyme-deficiency diseases, comprises affinity label and protein-reactive
PT
PT
     group attached via linker.
XX
     Disclosure; Page 61; 116pp; English.
PS
XX
     This sequence represents a fragment of the yeast SAH1 protein. The
CC
CC
     invention relates to reagent (I) for mass spectrometric analysis of
```

proteins comprises an affinity label (A) that binds selectively to a

capture reagent, attached, via a linker (L) that can be differentially

enzyme substrate. (I) are used, particularly diagnostically, to identify

labelled with stable isotopes, to a protein-reactive group (PRG) that

reacts selectively with certain protein functional groups, or is an

CC

CC

CC

CC

CC

```
CC
     one or more proteins, or their functions, in a mixture. They may also be
     used to detect relative expression levels of proteins in different
CC
     samples, particularly where these have been exposed to different stimuli
CC
     or changes in conditions, e.g. to assess effects of drugs, toxins,
CC
     temperature, mutations etc., and identified proteins may then serve as
CC
     markers for a change in state, e.g. malignancy. Particularly PRG is an
CC
     enzyme substrate and the method is used to detect enzyme-deficiency
CC
     disorders (birth defects or lysosomal storage diseases). (I) provides
CC
     rapid and quantitative analysis of proteins and their functions, and
CC
CC
     provides selective isolation of peptide fragments or enzyme reaction
CC
     products. The complete protein profile of a cell or tissue can be
     determined
CC
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+04;
            3; Conservative
                                                                              0;
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
Qу
            8 NIK 10
              111
Db
            4 NIK 6
RESULT 73
AAB35570
     AAB35570 standard; protein; 11 AA.
ID
XX
AC
     AAB35570;
XX
DT
     14-FEB-2001 (first entry)
XX
     Uteroglobin fragment #5.
DE
XX
     Uteroglobin; immunoglobulin A mediated disease; IgA nephropathy;
KW
     autoimmune disorder; pulmonary inflammation; Wegener's granulomatosus;
KW
     Goodpasture's disease; diabetic glomerulosclerosis.
KW
XX
OS
     Unidentified.
XX
     WO200062795-A2.
ΡN
XX
PD
     26-OCT-2000.
XX
     13-APR-2000; 2000WO-US009979.
PΕ
XX
PR
     21-APR-1999;
                    99US-0130434P.
XX
PA
     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PΙ
     Mukherjee AB,
                    Zheng F,
                              Zhang Z;
XX
     WPI; 2000-687100/67.
DR
XX
     Use of a composition comprising uteroglobin (or a fragment, derivative,
PT
     mimetic or variant), for inhibiting or treating an immunoglobulin-A
PT
     mediated autoimmune disorders, e.g. diabetic glomerulosclerosis and
PT
```

```
PT
     pulmonary inflammation.
XX
     Example 9; Page 35; 60pp; English.
PS
XX
     The present invention describes the use of uteroglobin in the diagnosis
CC
     and prevention of IqA mediated diseases, such as IgA nephropathy,
CC
     Wegener's granulomatosus, Goodpasture's disease and diabetic
CC
     glomerulosclerosis. This is possible as uteroglobin binds to fibronectin,
CC
     preventing the complexing of fibronectin with IgA and the deposition of
CC
CC
     immune complexes in the kidney
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
 Matches
            3; Conservative
                                 0; Mismatches
Qу
            1 ASK 3
              \mathbf{I}
Db
            3 ASK 5
RESULT 74
AAB35573
     AAB35573 standard; protein; 11 AA.
XX
AC
     AAB35573;
XX
DT
     14-FEB-2001 (first entry)
XX
     Uteroglobin fragment #8.
DE
XX
     Uteroglobin; immunoglobulin A mediated disease; IgA nephropathy;
KW
     autoimmune disorder; pulmonary inflammation; Wegener's granulomatosus;
KW
     Goodpasture's disease; diabetic glomerulosclerosis.
KW
XX
os
     Unidentified.
XX
     WO200062795-A2.
PN
XX
     26-OCT-2000.
PD
XX
     13-APR-2000; 2000WO-US009979.
PF
XX
                    99US-0130434P.
     21-APR-1999;
PR
XX
     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
PA
XX
PI
     Mukherjee AB, Zheng F,
                              Zhang Z;
XX
DR
     WPI; 2000-687100/67.
XX
PΤ
     Use of a composition comprising uteroglobin (or a fragment, derivative,
PT
     mimetic or variant), for inhibiting or treating an immunoglobulin-A
PT
     mediated autoimmune disorders, e.g. diabetic glomerulosclerosis and
PT
     pulmonary inflammation.
XX
```

```
XX
     The present invention describes the use of uteroglobin in the diagnosis
CC
CC
     and prevention of IgA mediated diseases, such as IgA nephropathy,
     Wegener's granulomatosus, Goodpasture's disease and diabetic
CC
     glomerulosclerosis. This is possible as uteroglobin binds to fibronectin,
CC
     preventing the complexing of fibronectin with IgA and the deposition of
CC
     immune complexes in the kidney
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+04;
  Best Local Similarity
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
             3; Conservative
                                0; Mismatches
            1 ASK 3
Qу
              111
            3 ASK 5
Db
RESULT 75
AAM97950
     AAM97950 standard; peptide; 11 AA.
ID
XX
     AAM97950;
AC
XX
     24-JAN-2002 (first entry)
DT
XX
     Human peptide #1225 encoded by a SNP oligonucleotide.
DE
XX
     Immunosuppressive; immunostimulatory; antiinflammatory; cytostatic;
KW
     neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer;
KW
     amyloid protein; angiopoietin; apoptosis related protein; cadherin;
KW
     cyclin; polymerase; oncogene; histone; kinase; colony stimulating factor;
KW
     complement related protein; cytochrome; kinesin; cytokine; interferon;
KW
     interleukin; G-protein coupled receptor; thioesterase; inflammation;
KW
     multifactorial disease; autoimmune disease; infection;
KW
KW
     nervous system disease.
XX
OS
     Homo sapiens.
XX
     WO200147944-A2.
PN
XX
     05-JUL-2001.
PD
XX
     28-DEC-2000; 2000WO-US035498.
PF
XX
     28-DEC-1999;
                    99US-0173419P.
PR
PR
     27-DEC-2000; 2000US-00173419.
XX
PA
     (CURA-) CURAGEN CORP.
XX
PI
     Shimkets RA, Leach M;
XX
     WPI; 2001-465210/50.
DR
XX
     Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases,
PT
```

Example 9; Page 35; 60pp; English.

PS

oncogenes and histones, useful for diagnosing and treating, e.g. cancer, PTautoimmune diseases and infections. PTXXPS Disclosure; Page 3936; 4143pp; English. XXThe present invention relates to oligonucleotides (see AAL26793-AAL34659) CC encoding polymorphic variants of proteins related to amylases, amyloid CC proteins, angiopoietin, apoptosis related proteins, cadherin, cyclin, CC polymerase, oncogenes, histones, kinases, colony stimulating factors, CCcomplement related proteins, cytochromes, kinesins, cytokines, CC interferons, interleukins, G-protein coupled receptors and thioesterases. CC The present sequence is a peptide encoded by one such oligonucleotide. CC The oligonucleotides and the peptides encoded by them may be used in the CC prevention, diagnosis and treatment of diseases associated with CC inappropriate expression of the proteins listed above. Disorders that may CC be prevented, diagnosed and/or treated include multifactorial diseases CC with a genetic component, such as autoimmune diseases (e.g. rheumatoid CC arthritis, multiple sclerosis, diabetes, systemic lupus erythromatosus CC and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, CC brain, breast, colon and kidney, leukaemia), diseases of the nervous CC system and an infection of pathogenic organisms CC XX SO Sequence 11 AA; 27.3%; Score 3; DB 4; Length 11; Query Match Best Local Similarity 100.0%; Pred. No. 1e+04;

0; Mismatches 0; 3; Conservative 0; Indels 0; Gaps

3 KKP 5 Qу Π 5 KKP 7 Db

Search completed: April 8, 2004, 15:39:46 Job time : 45.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:08; Search time 11.3077 Seconds

(without alignments)

50.221 Million cell updates/sec

Title: US-09-787-443A-1

Perfect score: 11

Sequence: 1 ASKKPKRNIKA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 389414 seqs, 51625971 residues

Word size : 0

Total number of hits satisfying chosen parameters: 8542

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: Issued Patents AA:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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ALIGNMENTS

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; Sequence 8, Application US/08416035
 Patent No. 5739278
  GENERAL INFORMATION:
    APPLICANT: Daum, Gunter
    APPLICANT: Cool, Deborah E.
                 Fischer, Edmond H.
    APPLICANT:
    TITLE OF INVENTION: Methods and Compositions for Protein
    TITLE OF INVENTION:
                         Tyrosine Phosphatases
    NUMBER OF SEQUENCES: 9
;
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE:
                   Seed and Berry
;
                6300 Columbia Center, 701 Fifth Avenue
       STREET:
      CITY: Seattle
       STATE: Washington
       COUNTRY: USA
       ZIP: 98104
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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      FILING DATE: 30-MAR-1995
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/059,949
      FILING DATE: 10-MAY-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Sharkey, Richard G.
      REGISTRATION NUMBER: 32,629
      REFERENCE/DOCKET NUMBER: 940010.531
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (206) 622-4900
      TELEFAX: (206) 682-6031
      TELEX: 3723836
  INFORMATION FOR SEQ ID NO: 8:
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; Patent No. 5247067
  GENERAL INFORMATION:
    APPLICANT: ARIMA, Terukatsu
    APPLICANT:
               YAMADA, Kyoko
    APPLICANT: HATANAKA, Tadashi
    APPLICANT: NAMBA, Toshihiko
    APPLICANT: TSUJI, Masao
    TITLE OF INVENTION: PEPTIDE AND ITS USE
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT
;
      STREET: 1755 Jefferson Davis Highway, Fourth Floor
      CITY: Arlington
      STATE: Virginia
      COUNTRY: US
      ZIP: 22202
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
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      FILING DATE: 19910422
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
      NAME: Oblon, No. 5247067man F.
      REGISTRATION NUMBER: 24,618
      REFERENCE/DOCKET NUMBER: 363-264-0X
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 521-5940
      TELEFAX: (703)486-2347
      TELEX: 248855 OPAT UR
  INFORMATION FOR SEQ ID NO: 18:
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; Sequence 16, Application US/07842089E
; Patent No. 5356875
  GENERAL INFORMATION:
    APPLICANT: SARMIENTOS, PAOLO
    APPLICANT: DE TAXIS DU POET, PHILIPPE
    APPLICANT: NITTI, GIAMPAOLO
   APPLICANT: SCACHERI, EMANUELA
    TITLE OF INVENTION: ANTI-THROMBIN POLYPEPTIDES
    NUMBER OF SEQUENCES: 59
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
      STREET: 1755 Jefferson Davis Highway, Fourth Floor
      CITY: Arlington
      STATE: Virginia
      COUNTRY: U.S.A.
      ZIP: 22202
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/842,089E
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FILING DATE: 26-FEB-1992
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      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Oblon, No. 5356875man F.
      REGISTRATION NUMBER: 24,618
      REFERENCE/DOCKET NUMBER: 769-265-0
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703)412-3000
      TELEFAX: (703)413-2220
      TELEX: 248855 OPAT UR
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; Sequence 17, Application US/07842089E
; Patent No. 5356875
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     APPLICANT: SARMIENTOS, PAOLO
     APPLICANT: DE TAXIS DU POET, PHILIPPE
    APPLICANT: NITTI, GIAMPAOLO
    APPLICANT: SCACHERI, EMANUELA
    TITLE OF INVENTION: ANTI-THROMBIN POLYPEPTIDES
    NUMBER OF SEQUENCES: 59
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
      ADDRESSEE: P.C.
;
       STREET: 1755 Jefferson Davis Highway, Fourth Floor
      CITY: Arlington
       STATE: Virginia
       COUNTRY: U.S.A.
      ZIP: 22202
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
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    CURRENT APPLICATION DATA:
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      FILING DATE: 26-FEB-1992
;
      CLASSIFICATION: 435
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Oblon, No. 5356875man F.
      REGISTRATION NUMBER: 24,618
      REFERENCE/DOCKET NUMBER: 769-265-0
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 412-3000
      TELEFAX: (703) 413-2220
      TELEX: 248855 OPAT UR
  INFORMATION FOR SEQ ID NO: 17:
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      NAME/KEY: Region
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      OTHER INFORMATION: to amino acids 37-47 of SEQ ID NO:1."
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; Sequence 8, Application US/07603675
; Patent No. 5416006
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    APPLICANT: Blasi, Francesco
    APPLICANT: Stoppelli, Maria P
    APPLICANT: Mastronicola, Maria R
;
    APPLICANT: Welinder, Karen G
;
    APPLICANT: Correas, Isabel
;
    TITLE OF INVENTION: MODIFICATION OF PLASMINOGEN ACTIVATORS
    NUMBER OF SEQUENCES: 8
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: COOPER & DUNHAM
      STREET: 30 ROCKEFELLER PLAZA
      CITY: NEW YORK
      STATE: NEW YORK
      COUNTRY: U.S.A.
      ZIP: 10112
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MEDIUM TYPE: Floppy disk
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      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.24
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/603,675
      FILING DATE: 19911218
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/DK90/00096
      FILING DATE: 11-APR-1990
    ATTORNEY/AGENT INFORMATION:
     NAME: White, John P
      REGISTRATION NUMBER: 28,678
      REFERENCE/DOCKET NUMBER: 38154
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 977-9550
      TELEFAX: (212) 644-0525
      TELEX: (212) 422523 COOP UI
  INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL: N
    FRAGMENT TYPE: internal
US-07-603-675-8
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
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 Matches
          3; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
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           3 KKP 5
Qу
             -111
Db
           3 KKP 5
RESULT 6
US-08-264-485-16
; Sequence 16, Application US/08264485
; Patent No. 5439820
  GENERAL INFORMATION:
    APPLICANT: SARMIENTOS, PAOLO
    APPLICANT: DE TAXIS DU POET, PHILIPPE
    APPLICANT: NITTI, GIAMPAOLO
                SCACHERI, EMANUELA
    APPLICANT:
    TITLE OF INVENTION: ANTI-THROMBIN POLYPEPTIDES
    NUMBER OF SEQUENCES: 59
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
      ADDRESSEE: P.C.
      STREET: 1755 Jefferson Davis Highway, Fourth Floor
      CITY: Arlington
      STATE: Virginia
;
      COUNTRY: U.S.A.
      ZIP: 22202
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COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/264,485
      FILING DATE: 23-JUN-1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/842,089
      FILING DATE: 26-FEB-1992
      CLASSIFICATION: 435
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Oblon, No. 5439820man F.
      REGISTRATION NUMBER: 24,618
      REFERENCE/DOCKET NUMBER: 769-265-0
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703)412-3000
      TELEFAX: (703)413-2220
      TELEX: 248855 OPAT UR
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    ORIGINAL SOURCE:
      ORGANISM: Hirudinaria manillensis
    FEATURE:
      NAME/KEY:
                 Region
      LOCATION:
                 1..11
      OTHER INFORMATION: /note= "This sequence corresponds
      OTHER INFORMATION: to amino acids 37-47 of SEQ ID NO:1."
US-08-264-485-16
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                         27.3%; Score 3; DB 1; Length 11;
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            3; Conservative 0; Mismatches 0; Indels
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 Matches
           4 KPK 6
Qу
             Db
           9 KPK 11
RESULT 7
US-08-264-485-17
; Sequence 17, Application US/08264485
; Patent No. 5439820
  GENERAL INFORMATION:
    APPLICANT: SARMIENTOS, PAOLO
    APPLICANT: DE TAXIS DU POET, PHILIPPE
    APPLICANT: NITTI, GIAMPAOLO
                SCACHERI, EMANUELA
    APPLICANT:
    TITLE OF INVENTION: ANTI-THROMBIN POLYPEPTIDES
    NUMBER OF SEQUENCES: 59
    CORRESPONDENCE ADDRESS:
```

```
ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
      ADDRESSEE: P.C.
      STREET: 1755 Jefferson Davis Highway, Fourth Floor
      CITY: Arlington
      STATE: Virginia
      COUNTRY: U.S.A.
      ZIP: 22202
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/264,485
;
      FILING DATE: 23-JUN-1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/842,089
      FILING DATE: 26-FEB-1992
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Oblon, No. 5439820man F.
      REGISTRATION NUMBER: 24,618
;
      REFERENCE/DOCKET NUMBER: 769-265-0
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 412-3000
      TELEFAX: (703)413-2220
      TELEX: 248855 OPAT UR
  INFORMATION FOR SEQ ID NO: 17:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    ORIGINAL SOURCE:
      ORGANISM: Hirudinaria manillensis
    FEATURE:
      NAME/KEY: Region
      LOCATION:
                 1..11
      OTHER INFORMATION: /note= "This sequence corresponds
      OTHER INFORMATION: to amino acids 37-47 of SEQ ID NO:1."
US-08-264-485-17
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 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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Qу
             \mathbf{I}
           9 KPK 11
Db
RESULT 8
US-08-111-939-7
; Sequence 7, Application US/08111939
; Patent No. 5460951
; GENERAL INFORMATION:
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APPLICANT: Kawai, Shinji
    APPLICANT: Takeshita, Sunao
    APPLICANT: Okazaki, Makoto
    APPLICANT: Amann, Egon
    TITLE OF INVENTION: Bone-Related Carboxypeptidase-Like
    TITLE OF INVENTION: Protein and Process for its Production
    NUMBER OF SEQUENCES: 27
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I Street, N.W.
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/111,939
      FILING DATE: 26-AUG-1993
      CLASSIFICATION:
                      435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP 324033/92
      FILING DATE: 03-DEC-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP 230029/92
      FILING DATE: 28-AUG-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Forman, David S.
      REGISTRATION NUMBER: 33,694
      REFERENCE/DOCKET NUMBER: 02481.1321-00000
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-408-4000
      TELEFAX: 202-408-4000
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: Other
      DESCRIPTION: OSF 5.1 (antigen peptide)
      DESCRIPTION: segment of mouse OSF-5 from the 116th to
      DESCRIPTION: the 126th amino acid residue
    ORIGINAL SOURCE:
      ORGANISM: Mus musculus
US-08-111-939-7
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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            3; Conservative
Qу
            4 KPK 6
              III
Db
           1 KPK 3
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RESULT 9
US-08-116-733-1
; Sequence 1, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION:
                       435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-1
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                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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                               0; Mismatches
                                                0; Indels
                                                                0; Gaps
 Matches
                                                                            0;
Qу
           3 KKP 5
              IIII
Db
           3 KKP 5
RESULT 10
US-08-116-733-31
; Sequence 31, Application US/08116733
; Patent No. 5516632
; GENERAL INFORMATION:
```

```
APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO: 31:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-31
                         27.3%; Score 3; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
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                                                                           0;
           3 KKP 5
Qу
             3 KKP 5
Db
RESULT 11
US-08-116-733-32
; Sequence 32, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
```

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CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
  INFORMATION FOR SEQ ID NO:
                              32:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-32
                         27.3%; Score 3; DB 1; Length 11;
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          3; Conservative 0; Mismatches 0;
                                                    Indels
                                                             0; Gaps
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           3 KKP 5
Qу
             +11
           3 KKP 5
RESULT 12
US-08-116-733-36
; Sequence 36, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
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      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-36
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                                                                0; Gaps
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Qу
           3 KKP 5
             3 KKP 5
Db
RESULT 13
US-08-116-733-37
; Sequence 37, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
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      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
```

```
NAME: WILSON, MARY J.
;
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
;
      TELEX: 200797 NIXN UR
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-37
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 Query Match
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          3; Conservative
           3 KKP 5
Qy
             111
           3 KKP 5
Db
RESULT 14
US-08-116-733-38
; Sequence 38, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
ï
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
;
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
;
      ZIP: 22201-4714
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      COMPUTER: IBM PC compatible
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      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
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INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
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US-08-116-733-38
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            3; Conservative
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Qу
             +++
           3 KKP 5
Db
RESULT 15
US-08-116-733-39
; Sequence 39, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
;
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
  INFORMATION FOR SEQ ID NO: 39:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-39
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Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0;
                                                    Indels 0; Gaps
           3 KKP 5
Qу
             \pm 1.11
           3 KKP 5
Db
RESULT 16
US-08-116-733-40
; Sequence 40, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
;
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
;
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
       TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-40
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
  Matches
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           3 KKP 5
Qу
              +111
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RESULT 17
US-08-116-733-41
; Sequence 41, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO:
                              41:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-116-733-41
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
            3 KKP 5
Qу
             3 KKP 5
RESULT 18
US-08-462-413-2
; Sequence 2, Application US/08462413
; Patent No. 5530009
```

```
GENERAL INFORMATION:
    APPLICANT: Cho, Sung Y.
    APPLICANT: Copp, James D.
    APPLICANT: Ginah, Francis O.
    APPLICANT: Hansen, Guy J.
    APPLICANT: Hipskind, Philip A.
    APPLICANT: Huff, Bret E.
    APPLICANT: Martinelli, Michael J.
    APPLICANT: Staszak, Michael A.
    APPLICANT: Tharp-Taylor, Roger W.
    TITLE OF INVENTION: PROCESS FOR PREPARING NON-PEPTIDYL
    TITLE OF INVENTION: TACHYKININ RECEPTOR ANTAGONISTS
    NUMBER OF SEQUENCES: 4
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Eli Lilly and Conpany
      STREET: Lilly Corporate Center
      CITY: Indianapolis
      STATE: Indiana
      COUNTRY: United States of America
      ZIP: 46285
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/462,413
      FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/271,708
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Gaylo, Paul J.
                            36,808
      REGISTRATION NUMBER:
      REFERENCE/DOCKET NUMBER: X-9475
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (317) 276-0756
      TELEFAX: (317) 276-3861
  INFORMATION FOR SEQ ID NO: 2:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-462-413-2
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
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 Matches
           5 PKR 7
Qу
             111
Db
           2 PKR 4
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RESULT 19
US-08-432-694-16
; Sequence 16, Application US/08432694
; Patent No. 5641751
  GENERAL INFORMATION:
    APPLICANT: Heavner, George A.
    TITLE OF INVENTION: Tumor Necrosis Factor Inhibitors
    NUMBER OF SEQUENCES: 22
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Woodcock, Washburn, Kurtz, Mackiewicz &
      ADDRESSEE: No. 5641751ris
      STREET: One Liberty Place, 46th floor
      CITY: Philadelphia
;
      STATE: PA
;
      COUNTRY: USA
      ZIP: 19103
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: WordPerfect 5.1
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/432,694
      FILING DATE:
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: DeLuca, Mark
      REGISTRATION NUMBER: 33,229
      REFERENCE/DOCKET NUMBER: CCOR-0230
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (215) 568-3100
      TELEFAX: (215) 568-3439
  INFORMATION FOR SEQ ID NO: 16:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-432-694-16
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3: Conservative
                              0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           1 ASK 3
Qу
             III
           2 ASK 4
RESULT 20
US-08-336-343A-23
; Sequence 23, Application US/08336343A
; Patent No. 5677144
  GENERAL INFORMATION:
    APPLICANT: Ullrich, Axel
    APPLICANT: Alves, Frauke
```

```
TITLE OF INVENTION: CCK-2, A No. 5677144el Receptor Tyrosine Kinase
;
    NUMBER OF SEQUENCES: 43
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/336,343A
      FILING DATE: 08-NOV-1994
      CLASSIFICATION: 435
;
    ATTORNEY/AGENT INFORMATION:
;
      NAME: Coruzzi, Laura A.
      REGISTRATION NUMBER: 30,742
      REFERENCE/DOCKET NUMBER: 7683-065
;
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-336-343A-23
 Query Match
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 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative
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                                               0;
           3 KKP 5
Qу
             111
            4 KKP 6
RESULT 21
US-08-314-202-1
; Sequence 1, Application US/08314202
; Patent No. 5702905
  GENERAL INFORMATION:
    APPLICANT: Takahashi, Miyoko
    APPLICANT: Jackowski, George
    TITLE OF INVENTION: MONOCLONAL ANTIBODY TO HUMAN VENTRICULAR
    TITLE OF INVENTION: MYOSIN LIGHT CHAINS
    NUMBER OF SEQUENCES: 1
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: David A. Jackson, Esq.
      STREET: 411 Hackensack Ave, Continental Plaza, 4th
      STREET: Floor
```

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CITY: Hackensack
      STATE: New Jersey
      COUNTRY: USA
      ZIP: 07601
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/314,202
      FILING DATE: 28-SEP-1994
      CLASSIFICATION: 436
    ATTORNEY/AGENT INFORMATION:
      NAME: Jackson Esq., David A.
      REGISTRATION NUMBER: 26,742
      REFERENCE/DOCKET NUMBER: 1112-1-018
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-487-5800
      TELEFAX: 201-343-1684
  INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL: YES
    FRAGMENT TYPE:
US-08-314-202-1
 Query Match
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 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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 Matches
           1 ASK 3
Qу
             ++1
Db
           6 ASK 8
RESULT 22
US-08-366-953A-27
; Sequence 27, Application US/08366953A
; Patent No. 5766593
  GENERAL INFORMATION:
    APPLICANT: Lichenstein, Henri S.
    APPLICANT: Wright, Samuel D.
    TITLE OF INVENTION: ANTI-INFLAMMATORY CD14 PEPTIDES
    NUMBER OF SEQUENCES: 49
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: AMGEN INC.
      STREET: 1840 Dehavilland Drive
      CITY: Thousand Oaks
      STATE: California
      COUNTRY: USA
      ZIP: 91320-1720
    COMPUTER READABLE FORM:
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MEDIUM TYPE: Floppy disk
;
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/366,953A
       FILING DATE: 30-DEC-1994
;
       CLASSIFICATION:
                       424
    ATTORNEY/AGENT INFORMATION:
       NAME: Cook Ph.D., Robert R.
       REGISTRATION NUMBER:
                             31,602
       REFERENCE/DOCKET NUMBER: A-324
   INFORMATION FOR SEQ ID NO: 27:
     SEQUENCE CHARACTERISTICS:
;
       LENGTH: 11 amino acids
;
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-366-953A-27
                          27.3%; Score 3; DB 1; Length 11;
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                          100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
          3; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
  Matches
                                                                               0;
            8 NIK 10
Qу
              -111
            1 NIK 3
RESULT 23
US-08-218-026-58
; Sequence 58, Application US/08218026
; Patent No. 5786324
  GENERAL INFORMATION:
     APPLICANT: Gray, Beulah
    APPLICANT: Haseman, Judith R.
    APPLICANT: Mayo, Kevin
     TITLE OF INVENTION: Synthetic Peptides with Bactericidal
    TITLE OF INVENTION: Activity and Endotoxin Neutralizing Activity for Gram TITLE OF INVENTION: Negative Bacteria and Methods for Their Use
    NUMBER OF SEQUENCES:
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Merchant & Gould
       STREET: 3100 No. 5786324west Center
       CITY: Minneapolis
       STATE: MN
       COUNTRY: USA
       ZIP: 55402
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/218,026
       FILING DATE: 24-MAR-1994
```

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CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
     NAME: Kowalchyk, Katherine M.
      REGISTRATION NUMBER: 36,848
      REFERENCE/DOCKET NUMBER: 600.286US01
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 612-332-5300
      TELEFAX: 612-332-9081
 INFORMATION FOR SEQ ID NO:
   SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-218-026-58
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  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
Qу
           8 NIK 10
            111
Dh
           3 NIK 5
RESULT 24
US-08-408-604A-103
; Sequence 103, Application US/08408604A
; Patent No. 5801149
  GENERAL INFORMATION:
    APPLICANT: Shoelson, Steven
    TITLE OF INVENTION: INHIBITION OF SIGNAL TRANSDUCTION MOLECULES
    NUMBER OF SEQUENCES: 211
   CORRESPONDENCE ADDRESS:
      ADDRESSEE: LAHIVE & COCKFIELD
      STREET: 60 State Street, Suite 510
      CITY: Boston
;
      STATE: Massachusetts
;
      COUNTRY: USA
      ZIP: 02109-1875
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/408,604A
      FILING DATE: 21-MAR-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/134,558
;
      FILING DATE: 08-OCT-1993
     PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US 07/959,949
      FILING DATE: 09-OCT-1992
   PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US 07/722,359
```

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FILING DATE: 19-JUNE-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: Myers, Louis
      REGISTRATION NUMBER: 35,965
;
      REFERENCE/DOCKET NUMBER: JDP-014CP3
;
    TELECOMMUNICATION INFORMATION:
;
      TELEPHONE: (617)227-7400
      TELEFAX: (617)227-5941
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FRAGMENT TYPE: internal
US-08-408-604A-103
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 Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
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           8 NIK 10
Qу
             \perp
           6 NIK 8
Db
RESULT 25
US-08-653-632-58
; Sequence 58, Application US/08653632
; Patent No. 5830860
   GENERAL INFORMATION:
    APPLICANT: GRAY, Beulah
    APPLICANT: HASEMAN, Judith R.
    APPLICANT: MAYO, Kevin
    TITLE OF INVENTION: PEPTIDES WITH BACTERICIDAL AND ENDOTOXIN NEUTRALIZING
    NUMBER OF SEQUENCES: 66
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Merchant, Gould, Smith, Edell, Welter & Schmidt
       STREET: 3100 No. 5830860west Center, 90 South Seventh St
      CITY: Minneapolis
      STATE: MN
      COUNTRY: USA
       ZIP: 55402
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
       COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
       SOFTWARE: FastSEO Version 1.5
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/653,632
       FILING DATE: 24-MAY-1996
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 08/218026
;
       FILING DATE: 24-MAR-1994
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Kettelberger, Denise M
```

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REGISTRATION NUMBER: 33,924
      REFERENCE/DOCKET NUMBER: 600.286USI1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 612/371-5268
       TELEFAX: 612/332-9081
;
      TELEX:
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FRAGMENT TYPE: internal
    ORIGINAL SOURCE:
US-08-653-632-58
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 Matches 3; Conservative 0; Mismatches 0; Indels
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                                                                 0; Gaps
            8 NIK 10
Qу
             \parallel \parallel \parallel \parallel
Db
            3 NIK 5
RESULT 26
US-08-669-721-21
; Sequence 21, Application US/08669721
; Patent No. 5834236
  GENERAL INFORMATION:
     APPLICANT: Lamb et al., Christopher J.
     TITLE OF INVENTION: NOVEL TRANSCRIPTION ENHANCER ELEMENT AND
     TITLE OF INVENTION: TRANSCRIPTION FACTOR AND METHODS OF USE THEREFOR
     NUMBER OF SEQUENCES: 22
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Fish & Richardson P.C.
       STREET: 4225 Executive Square, Suite 1400
       CITY: La Jolla
       STATE: CA
       COUNTRY: USA
            92037
       ZIP:
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/669,721
       FILING DATE: 27-JUN-1996
       CLASSIFICATION: 435
     ATTORNEY/AGENT INFORMATION:
       NAME: Ellison, Eldora L.
       REGISTRATION NUMBER: 39,967
;
       REFERENCE/DOCKET NUMBER: 07251/014001
```

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TELECOMMUNICATION INFORMATION:
      TELEPHONE: 619/678-5070
      TELEFAX: 619/678-5099
  INFORMATION FOR SEQ ID NO: 21:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: not relevant
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-669-721-21
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels
           5 PKR 7
             111
          3 PKR 5
RESULT 27
US-08-856-663-8
; Sequence 8, Application US/08856663
; Patent No. 5849558
  GENERAL INFORMATION:
    APPLICANT: MORGAN, RICHARD
    APPLICANT: CHANG, ZHIYUH
    TITLE OF INVENTION: DISCOVERY OF AND
    TITLE OF INVENTION: METHOD FOR CLONING AND PRODUCING THE
    TITLE OF INVENTION: PSPGI RESTRICTION ENDONUCLEASE
    NUMBER OF SEQUENCES: 14
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: New England Biolabs, Inc.
      STREET: 32 Tozer Road
      CITY: Beverly
      STATE: MA
      COUNTRY: US
      ZIP: 01915
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/856,663
      FILING DATE: 15-MAY-1997
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Williams, Gregory D
      REGISTRATION NUMBER: 30901
      REFERENCE/DOCKET NUMBER: NEB-127
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 978-927-5054
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TELEFAX: 978-927-1705
      TELEX:
  INFORMATION FOR SEQ ID NO: 8:
   SEQUENCE CHARACTERISTICS:
     LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-856-663-8
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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                                                                          0;
 Matches 3; Conservative
           3 KKP 5
Qу
             111
           2 KKP 4
Db
RESULT 28
US-08-737-085A-12
; Sequence 12, Application US/08737085A
; Patent No. 5869232
; GENERAL INFORMATION:
    APPLICANT: SALLBERG, MATTI
    TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
  TITLE OF INVENTION: EXCHANGER
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: DARBY & DARBY PC
      STREET: 805 Third Avenue
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10022
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/737,085A
      FILING DATE: 27-DEC-1996
      CLASSIFICATION: 426
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Green, Reza
      REGISTRATION NUMBER: 38,475
      REFERENCE/DOCKET NUMBER: 3846/0C569
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 212-527-7659
      TELEFAX: 212-753-6237
      TELEX: 236687
 INFORMATION FOR SEQ ID NO: 12:
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SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-737-085A-12
 Query Match
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 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
           6 KRN 8
Qy
             \Box
           5 KRN 7
Db
RESULT 29
US-08-466-975A-3
; Sequence 3, Application US/08466975A
; Patent No. 5910404
  GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
      ZIP: 22201
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
       SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/466,975A
       FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/391,671
      FILING DATE:
      APPLICATION NUMBER: US 07/920,286
       FILING DATE: 14-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
       FILING DATE: 13-DEC-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: EP 90124241.2
       FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
```

```
NAME: SADOFF, B.J.
      REGISTRATION NUMBER:
                            36,663
      REFERENCE/DOCKET NUMBER: 1487-5
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 7038164000
      TELEFAX: 7038164100
  INFORMATION FOR SEQ ID NO:
                              3:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-466-975A-3
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
            6 KRN 8
Qy
             111
Dh
            5 KRN 7
RESULT 30
US-08-391-671A-3
; Sequence 3, Application US/08391671A
; Patent No. 5922532
  GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
     TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
     TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
       STATE: VA
       COUNTRY: USA
       ZIP: 22201
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
;
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/391,671A
       FILING DATE: 21-FEB-1995
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 07/920,286
       FILING DATE: 14-OCT-1992
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
```

```
FILING DATE: 13-DEC-1991
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: EP 90124241.2
;
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: SADOFF, B.J.
      REGISTRATION NUMBER:
                           36,663
      REFERENCE/DOCKET NUMBER: 1487-5
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 7038164000
      TELEFAX: 7038164100
  INFORMATION FOR SEQ ID NO: 3:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-391-671A-3
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
           6 KRN 8
Qу
             \Box\Box\Box
           5 KRN 7
Db
RESULT 31
US-08-934-222-114
; Sequence 114, Application US/08934222
; Patent No. 5928896
  GENERAL INFORMATION:
    APPLICANT: EVANS, Herbert J.
    APPLICANT: KINI, R. Manjunatha
    TITLE OF INVENTION: Polypeptides That Include Conformation-
    TITLE OF INVENTION: Constraining Groups Which Flank A Protein-Protein
Interaction
    TITLE OF INVENTION: Site
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Foley & Lardner
       STREET: Suite 500, 3000 K Street NW
      CITY: Washington
       STATE: DC
;
      COUNTRY: USA
;
       ZIP: 20007
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/934,222
       FILING DATE: 19-SEPT-1997
     PRIOR APPLICATION DATA:
```

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;
      APPLICATION NUMBER: 08/532,818
       FILING DATE: 03-MAY-1996
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: U.S. 08/143,364
;
       FILING DATE: 29-OCT-1993
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: U.S. 08/051,741
       FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
       REGISTRATION NUMBER: 33,751
       REFERENCE/DOCKET NUMBER: 040433/0148
   INFORMATION FOR SEQ ID NO: 114:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
      TOPOLOGY: linear
US-08-934-222-114
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
                         100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches 0;
                                                      Indels
                                                                0; Gaps
                                                                            0;
            1 ASK 3
Qy
             +111
Db
            4 ASK 6
RESULT 32
US-08-933-402-114
; Sequence 114, Application US/08933402
; Patent No. 5948887
  GENERAL INFORMATION:
    APPLICANT: EVANS, Herbert J.
    APPLICANT: KINI, R. Manjunatha
     TITLE OF INVENTION: Polypeptides That Include Conformation-
     TITLE OF INVENTION: Constraining Groups Which Flank A Protein-Protein
Interaction
    TITLE OF INVENTION: Site
    NUMBER OF SEQUENCES: 153
ï
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: Foley & Lardner
       STREET: Suite 500, 3000 K Street NW
       CITY: Washington
       STATE: DC
       COUNTRY: USA
       ZIP: 20007
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/933,402
       FILING DATE: 19-SEPT-1997
    PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 08/532,818
```

```
FILING DATE: 03-MAY-1996
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/143,364
;
      FILING DATE: 29-OCT-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/051,741
      FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
      REGISTRATION NUMBER: 33,751
      REFERENCE/DOCKET NUMBER: 040433/0148
  INFORMATION FOR SEQ ID NO: 114:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      TOPOLOGY: linear
US-08-933-402-114
 Query Match
                         27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                            0;
 Matches
                                                             0; Gaps
           1 ASK 3
Qу
             4 ASK 6
Db
RESULT 33
US-09-207-621-114
; Sequence 114, Application US/09207621
; Patent No. 5952465
  GENERAL INFORMATION:
    APPLICANT: EVANS, Herbert J.
    APPLICANT: KINI, R. Manjunatha
    TITLE OF INVENTION: Polypeptides That Include Conformation-
    TITLE OF INVENTION: Constraining Groups Which Flank A Proten-Protein
Interaction Sit
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Foley & Lardner
;
      STREET: Suite 500, 3000 K Street NW
      CITY: Washington
      STATE: DC
      COUNTRY: USA
      ZIP: 20007
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/207,621
;
      FILING DATE:
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: 08/532,818
;
      FILING DATE: 03-MAY-1996
      APPLICATION NUMBER: PCT/US94/04294
```

```
FILING DATE: 21-APR-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/143,364
      FILING DATE: 29-OCT-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/051,741
      FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
      REGISTRATION NUMBER: 33,751
      REFERENCE/DOCKET NUMBER: 040433/0148
  INFORMATION FOR SEQ ID NO: 114:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-09-207-621-114
 Query Match
                         27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
           1 ASK 3
Qу
             Db
           4 ASK 6
RESULT 34
US-08-350-260A-525
; Sequence 525, Application US/08350260A
; Patent No. 5962255
  GENERAL INFORMATION:
    APPLICANT: Winter, Gregory Paul
    APPLICANT: Griffiths, Andrew David
    APPLICANT: Williams, Samuel Cameron
    APPLICANT: Waterhouse, Peter
    APPLICANT: Nissim, Ahuva
    APPLICANT: Johnson, Kevin Stuart
    APPLICANT: Smith, Andrew John Hammond
;
    TITLE OF INVENTION: Methods for producing members of specific
;
    TITLE OF INVENTION: binding pairs
    NUMBER OF SEQUENCES: 602
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: David W. Clough
      STREET: Marshall, O'Toole, Gerstein, Murray & Borun
      STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
      ZIP: 60606-6402
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/350,260A
```

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FILING DATE: 05-DEC-1994
;
      CLASSIFICATION: 435
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: GB 9110549.4
;
      FILING DATE: 15-MAY-1991
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: GB 9206318.9
      FILING DATE: 24-MAR-1992
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB91/01134
      FILING DATE: 10-JUL-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB92/00883
      FILING DATE: 15-MAY-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB93/00605
;
      FILING DATE: 24-MAR-1993
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/150,002
;
      FILING DATE: 31-MAR-1994
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: US 08/307,619
      FILING DATE: 16-SEP-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Clough, David W
      REGISTRATION NUMBER: 36,107
      REFERENCE/DOCKET NUMBER: 28111/32372
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312-474-6300
  INFORMATION FOR SEQ ID NO: 525:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
US-08-350-260A-525
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                         100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                              0;
 Matches
            2 SKK 4
Qy
              \parallel \parallel \parallel
Db
            4 SKK 6
RESULT 35
US-08-564-063-26
; Sequence 26, Application US/08564063
; Patent No. 5962418
   GENERAL INFORMATION:
     APPLICANT: SAKARIASSEN, Kjell S
                 STEPHENS, Ross W
     APPLICANT:
;
     APPLICANT: ORNING, Lars
;
     TITLE OF INVENTION: FACTOR VII-DERIVED PEPTIDES
    NUMBER OF SEQUENCES: 26
    CORRESPONDENCE ADDRESS:
```

```
ADDRESSEE: Testa, Hurwitz & Thibeault, LLP
      STREET: 125 High Street
;
      CITY: Boston
;
      STATE: MA
      COUNTRY: USA
      ZIP: 02110
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
     OPERATING SYSTEM: PC-DOS/MS-DOS
     SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/564,063
      FILING DATE: 28-MAY-1996
      CLASSIFICATION: 514
;
    ATTORNEY/AGENT INFORMATION:
      NAME: CAMPBELL, Paula A
;
      REGISTRATION NUMBER: 32,503
;
      REFERENCE/DOCKET NUMBER: FRD-006
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 248-7000
      TELEFAX: (617) 248-7100
   INFORMATION FOR SEQ ID NO: 26:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-564-063-26
                         27.3%; Score 3; DB 2; Length 11;
  Ouery Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches 0; Indels 0; Gaps
  Matches
            6 KRN 8
Qу
             111
            8 KRN 10
Db
RESULT 36
US-08-532-818-114
; Sequence 114, Application US/08532818
; Patent No. 5965698
  GENERAL INFORMATION:
     APPLICANT: EVANS, Herbert J.
     APPLICANT: KINI, R. Manjunatha
     TITLE OF INVENTION: Polypeptides That Include Conformation-
     TITLE OF INVENTION: Constraining Groups Which Flank A Protein-Protein
Interaction
     TITLE OF INVENTION: Site
     NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
;
       ADDRESSEE: Foley & Lardner
       STREET: Suite 500, 3000 K Street NW
       CITY: Washington
       STATE: DC
```

```
COUNTRY: USA
;
      ZIP: 20007
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/532,818
      FILING DATE: 03-MAY-1996
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/US94/04294
      FILING DATE: 21-APR-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/143,364
      FILING DATE: 29-OCT-1993
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/051,741
;
      FILING DATE: 23-APR-1993
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
      REGISTRATION NUMBER: 33,751
      REFERENCE/DOCKET NUMBER: 040433/0148
   INFORMATION FOR SEQ ID NO: 114:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
      TOPOLOGY: linear
US-08-532-818-114
                        27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
           1 ASK 3
Qу
             4 ASK 6
RESULT 37
US-08-182-067-4
; Sequence 4, Application US/08182067
; Patent No. 5985279
  GENERAL INFORMATION:
    APPLICANT: WALDMANN, HERMAN
    APPLICANT: SIMS, MARTIN
    APPLICANT: CROWE, SCOTT
    TITLE OF INVENTION: HUMANIZED ANTIBODY AGAINST CD18
    NUMBER OF SEQUENCES: 35
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Rothwell, Figg Ernst & Kurz
       STREET: Suite 701-E, 555 Thirteenth St., N.W
       CITY: Washington
       STATE: D. C.
       COUNTRY: U.S.A.
       ZIP: 20004
    COMPUTER READABLE FORM:
```

```
MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/182,067
      FILING DATE: 23-MAR-1994
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB92/01289
      FILING DATE: 15-JUL-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9115364.3
      FILING DATE: 16-JUL-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: ERNST, BARBARA G.
      REGISTRATION NUMBER: 30,377
      REFERENCE/DOCKET NUMBER: 1786-118A
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 783-6040
      TELEFAX: (202) 783-6031
  INFORMATION FOR SEQ ID NO: 4:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-182-067-4
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                            0;
 Matches
           1 ASK 3
Qу
              111
           2 ASK 4
Db
RESULT 38
US-08-465-313-4
; Sequence 4, Application US/08465313
; Patent No. 5997867
  GENERAL INFORMATION:
    APPLICANT: WALDMANN, HERMAN
    APPLICANT: SIMS, MARTIN J.
    APPLICANT: CROWE, J. SCOTT
    TITLE OF INVENTION: HUMANIZED ANTIBODY AGAINST CD18
    NUMBER OF SEQUENCES: 35
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
       STREET: TWO MILITIA DRIVE
       CITY: LEXINGTON
       STATE: MASSACHUSETTS
       COUNTRY: USA
       ZIP: 02173
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
```

```
COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/465,313
      FILING DATE: 05-JUN-1995
;
      CLASSIFICATION: 424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/182,067
      FILING DATE: 23-MAR-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/GB92/01289
      FILING DATE: 15-JUL-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9115364.3
      FILING DATE: 16-JUL-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: BROOK, DAVID E.
      REGISTRATION NUMBER: 22,592
;
      REFERENCE/DOCKET NUMBER: LYNX91-01A2
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 861-6240
      TELEFAX: (617) 861-9540
  INFORMATION FOR SEQ ID NO: 4:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-465-313-4
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                                                                           0;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
           1 ASK 3
Qу -
             2 ASK 4
Db
RESULT 39
US-08-467-902A-3
; Sequence 3, Application US/08467902A
; Patent No. 6007982
 GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
;
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VA
```

```
;
      ZIP: 22201
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/467,902A
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/391,671
      FILING DATE:
      APPLICATION NUMBER: US 07/920,286
      FILING DATE: 14-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
      FILING DATE: 13-DEC-1991
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: EP 90124241.2
;
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: SADOFF, B.J.
       REGISTRATION NUMBER: 36,663
      REFERENCE/DOCKET NUMBER: 1487-5
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 7038164000
       TELEFAX: 7038164100
  INFORMATION FOR SEQ ID NO: 3:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-467-902A-3
                         27.3%; Score 3; DB 3; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
            6 KRN 8
Qу
              III
            5 KRN 7
Db
RESULT 40
US-08-974-899-13
; Sequence 13, Application US/08974899
; Patent No. 6037454
  GENERAL INFORMATION:
     APPLICANT: Presta, Leonard G.
     APPLICANT: Jardieu, Paula M.
     TITLE OF INVENTION: Humanized Anti-CD11a Antibodies
    NUMBER OF SEQUENCES: 24
    CORRESPONDENCE ADDRESS:
```

COUNTRY: USA

```
ADDRESSEE: Genentech, Inc.
      STREET: 1 DNA Way
      CITY: South San Francisco
      STATE: California
      COUNTRY: USA
      ZIP: 94080
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: WinPatin (Genentech)
    CURRENT APPLICATION DATA:
    APPLICATION NUMBER: US/08/974,899
      FILING DATE:
      CLASSIFICATION: 536
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 60/031971
      FILING DATE: 11/27/96
    ATTORNEY/AGENT INFORMATION:
;
      NAME: Lee, Wendy M.
      REGISTRATION NUMBER: 40,378
      REFERENCE/DOCKET NUMBER: P1014R1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 650/225-1994
      TELEFAX: 650/952-9881
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: Amino Acid
      TOPOLOGY: Linear
US-08-974-899-13
                         27.3%; Score 3; DB 3; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0;
                                                                           0;
                                                     Indels
                                                                0; Gaps
           1 ASK 3
Qy
             +111
           2 ASK 4
Db
RESULT 41
US-09-246-258-12
; Sequence 12, Application US/09246258
; Patent No. 6040137
  GENERAL INFORMATION:
    APPLICANT: SALLBERG, MATTI
    TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
    TITLE OF INVENTION: EXCHANGER
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: DARBY & DARBY PC
;
       STREET: 805 Third Avenue
;
      CITY: New York
       STATE: New York
       COUNTRY: USA
       ZIP: 10022
```

```
COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/246,258
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/737,085
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Green, Reza
;
      REGISTRATION NUMBER: 38,475
      REFERENCE/DOCKET NUMBER: 3846/0C569
;
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 212-527-7659
      TELEFAX: 212-753-6237
      TELEX: 236687
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-246-258-12
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
            6 KRN 8
Qу
              \mathbf{1}
            5 KRN 7
RESULT 42
US-09-231-797-114
; Sequence 114, Application US/09231797
; Patent No. 6084066
  GENERAL INFORMATION:
     APPLICANT: EVANS, Herbert J.
     APPLICANT: KINI, R. Manjunatha
     TITLE OF INVENTION: Polypeptides That Include Conformation-
     TITLE OF INVENTION: Constraining Groups Which Flank A Proten-Protein
Interaction Sit
     NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Foley & Lardner
       STREET: Suite 500, 3000 K Street NW
       CITY: Washington
       STATE: DC
       COUNTRY: USA
       ZIP: 20007
     COMPUTER READABLE FORM:
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```
MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.25
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/231,797
      FILING DATE:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/532,818
      FILING DATE: 03-MAY-1996
      APPLICATION NUMBER: PCT/US94/04294
      FILING DATE: 21-APR-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/143,364
      FILING DATE: 29-OCT-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/051,741
      FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
      REGISTRATION NUMBER: 33,751
      REFERENCE/DOCKET NUMBER: 040433/0148
   INFORMATION FOR SEQ ID NO: 114:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
       TOPOLOGY: linear
US-09-231-797-114
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
           1 ASK 3
Qу
             111
            4 ASK 6
Db
RESULT 43
US-08-934-224-114
; Sequence 114, Application US/08934224
; Patent No. 6100044
   GENERAL INFORMATION:
     APPLICANT: EVANS, Herbert J.
     APPLICANT: KINI, R. Manjunatha
     TITLE OF INVENTION: Polypeptides That Include Conformation-
     TITLE OF INVENTION: Constraining Groups Which Flank A Protein-Protein
Interaction
     TITLE OF INVENTION: Site
     NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Foley & Lardner
       STREET: Suite 500, 3000 K Street NW
       CITY: Washington
       STATE: DC
       COUNTRY: USA
       ZIP: 20007
```

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COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/934,224
      FILING DATE:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/532,818
;
      FILING DATE: 03-MAY-1996
      APPLICATION NUMBER: PCT/US94/04294
      FILING DATE: 21-APR-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/143,364
      FILING DATE: 29-OCT-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/051,741
;
      FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
      REGISTRATION NUMBER: 33,751
      REFERENCE/DOCKET NUMBER: 040433/0148
  INFORMATION FOR SEQ ID NO: 114:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
US-08-934-224-114
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                                                0; Indels 0; Gaps
                                                                            0;
                              0; Mismatches
           3; Conservative
            1 ASK 3
Qу
              111
            4 ASK 6
Db
RESULT 44
US-08-933-843-114
; Sequence 114, Application US/08933843
; Patent No. 6111069
  GENERAL INFORMATION:
     APPLICANT: EVANS, Herbert J.
     APPLICANT: KINI, R. Manjunatha
     TITLE OF INVENTION: Polypeptides That Include Conformation-
     TITLE OF INVENTION: Constraining Groups Which Flank A Protein-Protein
Interaction
     TITLE OF INVENTION: Site
     NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Foley & Lardner
       STREET: Suite 500, 3000 K Street NW
       CITY: Washington
       STATE: DC
       COUNTRY: USA
```

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ZIP: 20007
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    COMPUTER READABLE FORM:
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      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/933,843
      FILING DATE: 19-SEPT-1997
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/532,818
      FILING DATE: 03-MAY-1996
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/143,364
      FILING DATE: 29-OCT-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/051,741
      FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
      REGISTRATION NUMBER: 33,751
      REFERENCE/DOCKET NUMBER: 040433/0148
  INFORMATION FOR SEQ ID NO: 114:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-08-933-843-114
                  27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                                                             0; Gaps
          3; Conservative 0; Mismatches 0; Indels
 Matches
           1 ASK 3
Qy
             111
           4 ASK 6
Db
RESULT 45
US-08-446-668-1
; Sequence 1, Application US/08446668
; Patent No. 6140058
  GENERAL INFORMATION:
    APPLICANT: Lane, David P.
    APPLICANT: Hupp, Theodore R.
    TITLE OF INVENTION: ACTIVATION OF P53 PROTEIN
    NUMBER OF SEQUENCES: 8
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Flehr Hohbach Test Albritton & Herbert LLP
       STREET: 4 Embarcadero Center, Suite 3400
      CITY: San Francisco
       STATE: California
       COUNTRY: United States
       ZIP: 94111
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/446,668
;
      FILING DATE: 24-JUL-1995
      CLASSIFICATION:
                      435
    ATTORNEY/AGENT INFORMATION:
      NAME: Dreger, Walter H.
      REGISTRATION NUMBER: 24,190
      REFERENCE/DOCKET NUMBER: A-61269/WHD/MTK
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-781-1989
      TELEFAX: 415-398-3249
  INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: unknown
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-446-668-1
 Query Match
                         27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                             0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           3; Conservative
           2 SKK 4
             111
           1 SKK 3
RESULT 46
US-08-934-223-114
; Sequence 114, Application US/08934223
; Patent No. 6147189
  GENERAL INFORMATION:
    APPLICANT: EVANS, Herbert J.
    APPLICANT: KINI, R. Manjunatha
    TITLE OF INVENTION: Polypeptides That Include Conformation-
    TITLE OF INVENTION: Constraining Groups Which Flank A Protein-Protein
Interaction
    TITLE OF INVENTION: Site
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Foley & Lardner
      STREET: Suite 500, 3000 K Street NW
      CITY: Washington
      STATE: DC
      COUNTRY: USA
      ZIP: 20007
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/934,223
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FILING DATE:
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/532,818
;
      FILING DATE: 03-MAY-1996
;
      APPLICATION NUMBER: PCT/US94/04294
;
      FILING DATE: 21-APR-1994
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: U.S. 08/143,364
     FILING DATE: 29-OCT-1993
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: U.S. 08/051,741
      FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
      REGISTRATION NUMBER: 33,751
      REFERENCE/DOCKET NUMBER: 040433/0148
;
  INFORMATION FOR SEO ID NO: 114:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-08-934-223-114
                       27.3%; Score 3; DB 3; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
           1 ASK 3
            111
Db
           4 ASK 6
RESULT 47
US-09-189-627A-22
; Sequence 22, Application US/09189627A
; Patent No. 6159691
; GENERAL INFORMATION:
; APPLICANT: La Thangue, Nicholas
; APPLICANT: de la Luna, Susana
  TITLE OF INVENTION: TRANSCRIPTION FACTOR DP-3 AND ISOFORMS THEREOF
; FILE REFERENCE: 620-54
  CURRENT APPLICATION NUMBER: US/09/189,627A
  CURRENT FILING DATE: 1998-11-10
  PRIOR APPLICATION NUMBER: 08/723,415
  PRIOR FILING DATE: 1996-09-30
  PRIOR APPLICATION NUMBER: GB 9610195
  PRIOR FILING DATE: 1996-05-15
; NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn Ver. 2.0
; SEO ID NO 22
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: DP-3 peptide
US-09-189-627A-22
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```
Query Match
                         27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
           2 SKK 4
QУ
             +1+1
           9 SKK 11
Db
RESULT 48
US-08-392-542-4
; Sequence 4, Application US/08392542
; Patent No. 6169073
  GENERAL INFORMATION:
    APPLICANT: Halazonetis, Thanos
    APPLICANT: Hartwig, Wolfgang
    TITLE OF INVENTION: Peptides nad Peptidomimetics with
    TITLE OF INVENTION: Structural Similarity to Human p53 That Activate p53
    TITLE OF INVENTION: Function
    NUMBER OF SEQUENCES: 35
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Banner, Birch, McKie & Beckett
      STREET: 1001 G Street, N.W.
      CITY: Washington, D.C.
      STATE: District of Columbia
      COUNTRY: U.S.
;
      ZIP: 20001
;
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/392,542
      FILING DATE:
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: Posorske, Laurence H.
      REGISTRATION NUMBER: 34,698
      REFERENCE/DOCKET NUMBER: 0486.48439
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202 508-9100
       TELEFAX: 202 508-9299
   INFORMATION FOR SEQ ID NO: 4:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
;
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-392-542-4
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
  Matches
            2 SKK 4
Qу
              +111
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RESULT 49
US-08-602-999A-285
; Sequence 285, Application US/08602999A
; Patent No. 6184205
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
;
                QUILLIAM, Lawrence A.
    APPLICANT:
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
      FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 285:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
      TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-08-602-999A-285
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
  Matches
            5 PKR 7
QУ
             +111
            7 PKR 9
Db
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```
RESULT 50
US-08-652-877-64
; Sequence 64, Application US/08652877
; Patent No. 6187548
  GENERAL INFORMATION:
    APPLICANT: Akerstrom, Goran
    APPLICANT: Juhlin, Claes
                Rask, Lars
    APPLICANT:
                Crumley, Gregg R.
    APPLICANT:
                Morse, Clarence C.
    APPLICANT:
                Murray, Edward M.
    APPLICANT:
                Hjalm, Goran
    APPLICANT:
    TITLE OF INVENTION: Human Calcium Sensor Protein, Fragments
     TITLE OF INVENTION: Thereof and DNA Encoding Same
     NUMBER OF SEQUENCES: 106
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Rhone-Poulenc Rorer Inc.
       STREET: 500 Arcola Rd., 3C43
       CITY: Collegeville
       STATE: PA
       COUNTRY: USA
       ZIP:
            19426-0107
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: Macintosh
       OPERATING SYSTEM: System 7.5.1
       SOFTWARE: Word 6.0 (Patentin)
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/652,877
       FILING DATE:
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: PCT/US95/15203
       FILING DATE: 22-NOV-1995
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/344,836
       FILING DATE: 23-NOV-1994
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/487,314
       FILING DATE: 07-JUNE-1995
     ATTORNEY/AGENT INFORMATION:
       NAME: Savitzky, Martin
       REGISTRATION NUMBER: 29,699
       REFERENCE/DOCKET NUMBER:
                                A1355E-US
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 610-454-3816
       TELEFAX: 610-454-3808
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS:
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
     HYPOTHETICAL: NO
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FRAGMENT TYPE: internal
US-08-652-877-64
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches
            3; Conservative
                              0; Mismatches
                                                  0;
                                                      Indels
                                                               0; Gaps
            1 ASK 3
QУ
             \perp \mid \cdot \mid \cdot \mid
            3 ASK 5
Db
RESULT 51
US-09-189-344-21
; Sequence 21, Application US/09189344
; Patent No. 6191258
   GENERAL INFORMATION:
     APPLICANT: Lamb et al., Christopher J.
     TITLE OF INVENTION: NOVEL TRANSCRIPTION ENHANCER ELEMENT AND
;
     TITLE OF INVENTION: TRANSCRIPTION FACTOR AND METHODS OF USE THEREFOR
;
     NUMBER OF SEQUENCES: 22
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Fish & Richardson P.C.
       STREET: 4225 Executive Square, Suite 1400
       CITY: La Jolla
       STATE: CA
       COUNTRY: USA
       ZIP: 92037
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/09/189,344
       FILING DATE:
       CLASSIFICATION:
;
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/669,721
       FILING DATE: 27-JUN-1996
     ATTORNEY/AGENT INFORMATION:
       NAME: Ellison, Eldora L.
       REGISTRATION NUMBER: 39,967
       REFERENCE/DOCKET NUMBER: 07251/014001
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 619/678-5070
       TELEFAX: 619/678-5099
   INFORMATION FOR SEQ ID NO: 21:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: not relevant
       TOPOLOGY: linear
     MOLECULE TYPE: protein
US-09-189-344-21
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
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```
Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
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          5 PKR 7
             +111
Db
           3 PKR 5
RESULT 52
US-08-647-405B-6
; Sequence 6, Application US/08647405B
; Patent No. 6228654
; GENERAL INFORMATION:
; APPLICANT: Chait, Brian T.
; APPLICANT: Zhao, Yingming
; APPLICANT: Kent, Stephen B.H.
; TITLE OF INVENTION: METHODS FOR STRUCTURE ANALYSIS OF OLIGOSACCHARIDES
; FILE REFERENCE: Oligosaccharides
; CURRENT APPLICATION NUMBER: US/08/647,405B
  CURRENT FILING DATE: 1996-05-09
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
  FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Related to
   OTHER INFORMATION: human translationally controlled tumor protein
US-08-647-405B-6
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                         0;
           1 ASK 3
Qу
            2 ASK 4
Db
RESULT 53
US-09-177-249-39
; Sequence 39, Application US/09177249
; Patent No. 6229064
; GENERAL INFORMATION:
; APPLICANT: Fischer, Robert L.
; APPLICANT: Ohad, Nir
; APPLICANT: Kiyosue, Tomohiro
; APPLICANT: Yadegari, Ramin
; APPLICANT: Margossian, Linda
; APPLICANT: Harada, John
 APPLICANT: Goldberg, Robert B.
  APPLICANT: The Regents of the University of California
  TITLE OF INVENTION: Nucleic Acids That Control Seed and Fruit
; TITLE OF INVENTION: Development in Plants
; FILE REFERENCE: 023070-086120US
; CURRENT APPLICATION NUMBER: US/09/177,249
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CURRENT FILING DATE: 1998-10-22
  EARLIER APPLICATION NUMBER: US 09/071,838
 EARLIER FILING DATE: 1998-05-01
 NUMBER OF SEQ ID NOS: 324
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 39
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Arabidopsis sp.
US-09-177-249-39
                         27.3%; Score 3; DB 3; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
            3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                              0; Gaps
                                                                            0;
           8 NIK 10
Qу
             Db
           4 NIK 6
RESULT 54
US-08-476-515A-64
; Sequence 64, Application US/08476515A
; Patent No. 6239270
  GENERAL INFORMATION:
     APPLICANT: Akerstrom, Goran
    APPLICANT: Juhlin, Claes
    APPLICANT: Rask, Lars
     APPLICANT:
                Crumley, Gregg R.
                Morse, Clarence C.
     APPLICANT:
    APPLICANT: Murray, Edward M.
                Hjalm, Goran
    APPLICANT:
    TITLE OF INVENTION: Human Calcium Sensor Protein, Fragments
     TITLE OF INVENTION: Thereof and DNA Encoding Same
    NUMBER OF SEQUENCES: 84
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Martin Savitzky
       STREET: Rhone-Poulenc Rorer Inc., 500 Arcola Rd.;
       STREET:
               3C43,
       CITY: Collegeville
       STATE: PA
       COUNTRY: USA
       ZIP: 19426-0107
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: Compaq PC
       OPERATING SYSTEM: Windows 95
       SOFTWARE: Word 7.0 (Patentin)
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/476,515A
       FILING DATE:
                    07-JUN-1995
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/344,836
       FILING DATE: 23-NOV-1994
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/SE94/00483
```

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FILING DATE: 24-MAY-1994
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: SE 9301764-8
;
      FILING DATE: 24-MAY-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Savitzky, Martin
      REGISTRATION NUMBER: 29,699
      REFERENCE/DOCKET NUMBER: A1355D
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 610-454-3816
      TELEFAX: 610-454-3808
  INFORMATION FOR SEQ ID NO: 64:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    FRAGMENT TYPE: internal
US-08-476-515A-64
                         27.3%; Score 3; DB 3; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                0; Gaps
           1 ASK 3
Qу
             111
            3 ASK 5
RESULT 55
US-08-894-327-4
; Sequence 4, Application US/08894327
; Patent No. 6245886
; GENERAL INFORMATION:
; APPLICANT: Halazonetis, Thanos
 APPLICANT: Hartwig, Wolfgang
  TITLE OF INVENTION: Peptides and peptidomimetics with
  TITLE OF INVENTION: structural similarity to human p53 that activate p53
  TITLE OF INVENTION: function
  FILE REFERENCE: 2973.19998
  CURRENT APPLICATION NUMBER: US/08/894,327
  CURRENT FILING DATE: 1997-12-04
   EARLIER APPLICATION NUMBER: pctus96/01535
;
  EARLIER FILING DATE: 1996-02-16
;
; EARLIER APPLICATION NUMBER: 08/392,542
 EARLIER FILING DATE: 1995-02-16
 NUMBER OF SEQ ID NOS: 35
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 4
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-08-894-327-4
                        27.3%; Score 3; DB 3; Length 11;
  Query Match
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Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
 Matches
            2 SKK 4
Qу
              +111
            9 SKK 11
Db
RESULT 56
US-09-532-106-12
; Sequence 12, Application US/09532106
; Patent No. 6245895
    GENERAL INFORMATION:
         APPLICANT: SALLBERG, MATTI
         TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
                             EXCHANGER
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: DARBY & DARBY PC
              STREET: 805 Third Avenue
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10022
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/532,106
              FILING DATE: 21-Mar-2000
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/08/737,085A
              FILING DATE: 27-DEC-1996
         ATTORNEY/AGENT INFORMATION:
              NAME: Green, Reza
              REGISTRATION NUMBER: 38,475
              REFERENCE/DOCKET NUMBER: 3846/0C569
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 212-527-7659
              TELEFAX: 212-753-6237
              TELEX: 236687
    INFORMATION FOR SEQ ID NO: 12:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 12:
US-09-532-106-12
                          27.3%; Score 3; DB 3; Length 11;
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6 KRN 8
Qу
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RESULT 57
US-09-410-025-7
; Sequence 7, Application US/09410025
; Patent No. 6251623
; GENERAL INFORMATION:
  APPLICANT: ARAHIRA, MASAOMI
  APPLICANT: FUKAZAWA, CHIKAFUSA
  TITLE OF INVENTION: QUICK ASSAY METHOD FOR THE ACTIVITY OF A PLANT-DERIVED,
ASPARAGINE
  TITLE OF INVENTION: RESIDUE-SPECIFIC ENDOPROTEASE
   FILE REFERENCE: 8361-0008-0
  CURRENT APPLICATION NUMBER: US/09/410,025
  CURRENT FILING DATE: 1999-10-01
   PRIOR APPLICATION NUMBER:
                             JP10-327536
  PRIOR FILING DATE: 1998-11-04
; NUMBER OF SEQ ID NOS:
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    ORGANISM: Glycine max
US-09-410-025-7
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            5 RNI 7
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RESULT 58
US-09-413-492-114
; Sequence 114, Application US/09413492
; Patent No. 6258550
   GENERAL INFORMATION:
     APPLICANT: EVANS, Herbert J.
     APPLICANT: KINI, R. Manjunatha
;
     TITLE OF INVENTION: Polypeptides That Include Conformation-
;
     TITLE OF INVENTION: Constraining Groups Which Flank A Protein-Protein
Interaction
     TITLE OF INVENTION: Site
     NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Foley & Lardner
       STREET: Suite 500, 3000 K Street NW
       CITY: Washington
       STATE: DC
       COUNTRY: USA
       ZIP: 20007
     COMPUTER READABLE FORM:
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MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/413,492
      FILING DATE:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/532,818
      FILING DATE: 03-MAY-1996
      APPLICATION NUMBER: PCT/US94/04294
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      FILING DATE: 21-APR-1994
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    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: U.S. 08/143,364
      FILING DATE: 29-OCT-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/051,741
      FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
      REGISTRATION NUMBER: 33,751
      REFERENCE/DOCKET NUMBER: 040433/0148
  INFORMATION FOR SEQ ID NO: 114:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-09-413-492-114
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Qу
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           4 ASK 6
Db
RESULT 59
US-09-275-265-3
; Sequence 3, Application US/09275265
; Patent No. 6287761
  GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
      ZIP: 22201
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COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/275,265
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/391,671
      FILING DATE: 21-FEB-1995
      APPLICATION NUMBER: US 07/920,286
      FILING DATE: 14-OCT-1992
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
      FILING DATE: 13-DEC-1991
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: EP 90124241.2
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: SADOFF, B.J.
       REGISTRATION NUMBER: 36,663
       REFERENCE/DOCKET NUMBER: 1487-5
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 7038164000
       TELEFAX: 7038164100
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-09-275-265-3
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US-09-025-596-7
; Sequence 7, Application US/09025596
; Patent No. 6340463
; GENERAL INFORMATION:
  APPLICANT: Mitchell, William M.
   APPLICANT: Stratton, Charles W.
   TITLE OF INVENTION: IDENTIFICATION OF ANTIGENIC PEPTIDE
   TITLE OF INVENTION: SEQUENCES
; FILE REFERENCE: VDB98-01
; CURRENT APPLICATION NUMBER: US/09/025,596
; CURRENT FILING DATE: 1998-02-18
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; EARLIER APPLICATION NUMBER: 08/911,593
; EARLIER FILING DATE: 1997-08-14
; EARLIER APPLICATION NUMBER: 60/023,921
  EARLIER FILING DATE: 1996-08-14
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 7
   LENGTH: 11
   TYPE: PRT
  ORGANISM: Chlamydia pneumoniae
US-09-025-596-7
                         27.3%; Score 3; DB 4; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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Qу
             111
           4 KKP 6
Db
RESULT 61
US-09-710-861-22
; Sequence 22, Application US/09710861
; Patent No. 6387649
; GENERAL INFORMATION:
  APPLICANT: La Thangue, Nicholas
  APPLICANT: de la Luna, Susana
  TITLE OF INVENTION: TRANSCRIPTION FACTOR DP-3 AND ISOFORMS THEREOF
 FILE REFERENCE: 620-54
  CURRENT APPLICATION NUMBER: US/09/710,861
  CURRENT FILING DATE: 2000-11-13
  PRIOR APPLICATION NUMBER: US/09/189,627
  PRIOR FILING DATE: 1998-11-10
  PRIOR APPLICATION NUMBER: 08/723,415
  PRIOR FILING DATE: 1996-09-30
  PRIOR APPLICATION NUMBER: GB 9610195
; PRIOR FILING DATE: 1996-05-15
; NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 22
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: DP-3 peptide
US-09-710-861-22
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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Qу
             111
           9 SKK 11
Db
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RESULT 62
US-09-685-027-4
; Sequence 4, Application US/09685027
 Patent No. 6420118
    GENERAL INFORMATION:
         APPLICANT: Halazonetis, Thanos
                    Hartwig, Wolfgang
         TITLE OF INVENTION: Peptides nad Peptidomimetics with
                             Structural Similarity to Human p53 That Activate
p53
                             Function
;
         NUMBER OF SEQUENCES: 35
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Banner, Birch, McKie & Beckett
              STREET: 1001 G Street, N.W.
              CITY: Washington, D.C.
              STATE: District of Columbia
              COUNTRY: U.S.
              ZIP: 20001
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/685,027
              FILING DATE: 10-Oct-2000
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/392,542
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Posorske, Laurence H.
              REGISTRATION NUMBER: 34,698
              REFERENCE/DOCKET NUMBER: 0486.48439
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 202 508-9100
              TELEFAX: 202 508-9299
    INFORMATION FOR SEQ ID NO: 4:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-09-685-027-4
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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              111
             9 SKK 11
Db
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; Sequence 698, Application US/09149476
 Patent No. 6420526
; GENERAL INFORMATION:
  APPLICANT: Rosen et al.
  TITLE OF INVENTION: 186 Human Secreted proteins
  FILE REFERENCE: PZ002P1
  CURRENT APPLICATION NUMBER: US/09/149,476
  CURRENT FILING DATE: 1998-09-08
  EARLIER APPLICATION NUMBER: PCT/US98/04493
  EARLIER FILING DATE: 1998-03-06
  EARLIER APPLICATION NUMBER: 60/040,162
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/040,333
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/038,621
  EARLIER FILING DATE: 1997-03-07
  EARLIER APPLICATION NUMBER: 60/040,626
   EARLIER FILING DATE: 1997-03-07
   EARLIER APPLICATION NUMBER: 60/040,334
   EARLIER FILING DATE: 1997-03-07
   EARLIER APPLICATION NUMBER: 60/040,336
   EARLIER FILING DATE: 1997-03-07
   EARLIER APPLICATION NUMBER: 60/040,163
   EARLIER FILING DATE: 1997-03-07
   EARLIER APPLICATION NUMBER: 60/047,600
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,615
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,597
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,502
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,633
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,583
   EARLIER FILING DATE: 1997-05-23
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   EARLIER APPLICATION NUMBER: 60/047,617
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,618
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,503
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,592
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,581
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   EARLIER APPLICATION NUMBER: 60/047,492
   EARLIER FILING DATE: 1997-05-23
   EARLIER APPLICATION NUMBER: 60/047,598
   EARLIER FILING DATE: 1997-05-23
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US-09-149-476-698

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; EARLIER APPLICATION NUMBER: 60/047,613
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- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,582
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,596
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,612
- : EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,632
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,601
- : EARLIER FILING DATE: 1997-05-23
- : EARLIER APPLICATION NUMBER: 60/043,580
- ; EARLIER FILING DATE: 1997-04-11
- : EARLIER APPLICATION NUMBER: 60/043,568
- EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,314
- EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,569
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- ; EARLIER APPLICATION NUMBER: 60/043,311
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,671
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,674
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,669
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,312
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,313
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,672
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,315
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/048,974
- ; EARLIER FILING DATE: 1997-06-06
- ; EARLIER APPLICATION NUMBER: 60/056,886
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,877
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,889
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,893
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,630
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,878
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,662
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,872
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- ; EARLIER APPLICATION NUMBER: 60/056,882
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,637

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; EARLIER FILING DATE: 1997-08-22
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- EARLIER APPLICATION NUMBER: 60/056,903
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,888
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,879
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,880
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,894
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,911
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,636
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,874
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,910
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,864
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,631
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,845
- : EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/056,892
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/057,761
- ; EARLIER FILING DATE: 1997-08-22
- ; EARLIER APPLICATION NUMBER: 60/047,595
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,599
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,588
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,585
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,586
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,590
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,594
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,589
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,593
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/047,614
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/043,578
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/043,576
- ; EARLIER FILING DATE: 1997-04-11
- ; EARLIER APPLICATION NUMBER: 60/047,501
- ; EARLIER FILING DATE: 1997-05-23
- ; EARLIER APPLICATION NUMBER: 60/043,670
- ; EARLIER FILING DATE: 1997-04-11

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  EARLIER APPLICATION NUMBER: 60/056,664
  EARLIER FILING DATE: 1997-08-22
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  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,881
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,909
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,875
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,862
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,887
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/056,908
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/048,964
  EARLIER FILING DATE: 1997-06-06
  EARLIER APPLICATION NUMBER: 60/057,650
  EARLIER FILING DATE: 1997-09-05
  EARLIER APPLICATION NUMBER: 60/056,884
  EARLIER FILING DATE: 1997-08-22
  EARLIER APPLICATION NUMBER: 60/057,669
  EARLIER FILING DATE: 1997-09-05
  EARLIER APPLICATION NUMBER: 60/049,610
  EARLIER FILING DATE: 1997-06-13
  EARLIER APPLICATION NUMBER: 60/061,060
  EARLIER FILING DATE: 1997-10-02
                         27.3%; Score 3; DB 4; Length 11;
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Qу
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            5 IKA 7
Db
RESULT 64
US-09-500-124-285
; Sequence 285, Application US/09500124
; Patent No. 6432920
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
                KAY, Brian K.
    APPLICANT:
                THORN, Judith M.
    APPLICANT:
                QUILLIAM, Lawrence A.
    APPLICANT:
    APPLICANT:
                DER, Channing J.
    APPLICANT:
                FOWLKES, Dana M.
                RIDER, James E.
    APPLICANT:
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES:
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
```

```
STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/500,124
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/602,999
     FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 285:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-285
 Query Match
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RESULT 65
US-09-347-926-7
; Sequence 7, Application US/09347926
; Patent No. 6440386
; GENERAL INFORMATION:
; APPLICANT: LEUNG, SHUI-ON
 TITLE OF INVENTION: STABILIZED RADIOPHOSPHATE-LABELED PROTEINS
 FILE REFERENCE: 018733/0936
 CURRENT APPLICATION NUMBER: US/09/347,926
  CURRENT FILING DATE: 1999-07-06
; NUMBER OF SEQ ID NOS: 24
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
  LENGTH: 11
; TYPE: PRT
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ORGANISM: Homo sapiens
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QУ
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           3 ASK 5
RESULT 66
US-09-129-112-17
; Sequence 17, Application US/09129112
; Patent No. 6465716
; GENERAL INFORMATION:
  APPLICANT: Etzler, Marilynn E.
  APPLICANT: Murphy, Judith B.
  APPLICANT: The Regents of the University of California
  TITLE OF INVENTION: A No. 6465716 Factor Binding Protein From Legume Roots
  FILE REFERENCE: 023070-079810US
  CURRENT APPLICATION NUMBER: US/09/129,112
  CURRENT FILING DATE: 1998-08-04
  PRIOR APPLICATION NUMBER: US 08/907,226
  PRIOR FILING DATE: 1997-08-06
  NUMBER OF SEQ ID NOS: 19
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 17
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Lotus japonicus
US-09-129-112-17
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Qу
              \perp
            3 IKA 5
RESULT 67
US-09-839-666-12
; Sequence 12, Application US/09839666
; Patent No. 6469143
    GENERAL INFORMATION:
         APPLICANT: SALLBERG, MATTI
;
         TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
                             EXCHANGER
;
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: DARBY & DARBY PC
              STREET: 805 Third Avenue
              CITY: New York
              STATE: New York
```

```
COUNTRY: USA
             ZIP: 10022
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Diskette
             COMPUTER: IBM Compatible
             OPERATING SYSTEM: DOS
             SOFTWARE: FastSEQ for Windows Version 2.0
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/839,666
             FILING DATE: 19-Apr-2001
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/737,085
             FILING DATE: <Unknown>
        ATTORNEY/AGENT INFORMATION:
             NAME: Green, Reza
             REGISTRATION NUMBER: 38,475
             REFERENCE/DOCKET NUMBER: 3846/0C569
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 212-527-7659
             TELEFAX: 212-753-6237
             TELEX: 236687
   INFORMATION FOR SEQ ID NO: 12:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
             TYPE: amino acid
             STRANDEDNESS: single
             TOPOLOGY: linear
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US-09-839-666-12
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Qy
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RESULT 68
US-09-839-743-16
; Sequence 16, Application US/09839743
; Patent No. 6472211
; GENERAL INFORMATION:
  APPLICANT: The Salk Institute for Biological Sciences
  APPLICANT: Lamb, Christopher
  APPLICANT: Doerner, Peter
  APPLICANT: Laible, Goetz
  TITLE OF INVENTION: No. 6472211el Transcription Enhancer Element and
  TITLE OF INVENTION: Transcription Factor and Methods of Use Thereof
  FILE REFERENCE: SALKINS.008DV3
  CURRENT APPLICATION NUMBER: US/09/839,743
; CURRENT FILING DATE: 2001-04-19
; PRIOR APPLICATION NUMBER: US 09/401,336
; PRIOR FILING DATE: 1999-09-21
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PRIOR APPLICATION NUMBER: US 09/189,344
 PRIOR FILING DATE: 1998-11-10
 PRIOR APPLICATION NUMBER: US 08/669,721
  PRIOR FILING DATE: 1996-06-27
; NUMBER OF SEQ ID NOS: 28
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEO ID NO 16
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   ORGANISM: Nicotiana tabacum
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US-09-839-743-17
; Sequence 17, Application US/09839743
; Patent No. 6472211
; GENERAL INFORMATION:
  APPLICANT: The Salk Institute for Biological Sciences
  APPLICANT: Lamb, Christopher
  APPLICANT: Doerner, Peter
  APPLICANT: Laible, Goetz
  TITLE OF INVENTION: No. 6472211el Transcription Enhancer Element and
  TITLE OF INVENTION: Transcription Factor and Methods of Use Thereof
  FILE REFERENCE: SALKINS.008DV3
  CURRENT APPLICATION NUMBER: US/09/839,743
  CURRENT FILING DATE: 2001-04-19
  PRIOR APPLICATION NUMBER: US 09/401,336
  PRIOR FILING DATE: 1999-09-21
;
   PRIOR APPLICATION NUMBER: US 09/189,344
   PRIOR FILING DATE: 1998-11-10
  PRIOR APPLICATION NUMBER: US 08/669,721
  PRIOR FILING DATE: 1996-06-27
  NUMBER OF SEQ ID NOS: 28
  SOFTWARE: FastSEQ for Windows Version 4.0
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  Matches
            5 PKR 7
Qу
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Db
            2 PKR 4
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; Sequence 18, Application US/09839743
; Patent No. 6472211
; GENERAL INFORMATION:
  APPLICANT: The Salk Institute for Biological Sciences
  APPLICANT: Lamb, Christopher
  APPLICANT: Doerner, Peter
             Laible, Goetz
  APPLICANT:
  TITLE OF INVENTION: No. 6472211el Transcription Enhancer Element and
  TITLE OF INVENTION: Transcription Factor and Methods of Use Thereof
  FILE REFERENCE: SALKINS.008DV3
  CURRENT APPLICATION NUMBER: US/09/839,743
  CURRENT FILING DATE: 2001-04-19
   PRIOR APPLICATION NUMBER: US 09/401,336
  PRIOR FILING DATE: 1999-09-21
  PRIOR APPLICATION NUMBER: US 09/189,344
   PRIOR FILING DATE: 1998-11-10
   PRIOR APPLICATION NUMBER: US 08/669,721
  PRIOR FILING DATE: 1996-06-27
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Qу
              III
            2 PKR 4
Db
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US-09-839-743-24
; Sequence 24, Application US/09839743
; Patent No. 6472211
; GENERAL INFORMATION:
   APPLICANT: The Salk Institute for Biological Sciences
   APPLICANT: Lamb, Christopher
   APPLICANT:
               Doerner, Peter
   APPLICANT:
              Laible, Goetz
   TITLE OF INVENTION: No. 6472211el Transcription Enhancer Element and
   TITLE OF INVENTION: Transcription Factor and Methods of Use Thereof
   FILE REFERENCE: SALKINS.008DV3
   CURRENT APPLICATION NUMBER: US/09/839,743
   CURRENT FILING DATE: 2001-04-19
   PRIOR APPLICATION NUMBER: US 09/401,336
   PRIOR FILING DATE: 1999-09-21
; PRIOR APPLICATION NUMBER: US 09/189,344
; PRIOR FILING DATE: 1998-11-10
; PRIOR APPLICATION NUMBER: US 08/669,721
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Qу
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US-08-671-548C-74
; Sequence 74, Application US/08671548C
; Patent No. 6486130
; GENERAL INFORMATION:
; APPLICANT: LIVEY, Ian
; APPLICANT: CROWE, Brian
 APPLICANT: DORNER, Friedrich
; TITLE OF INVENTION: IMMUNOGENIC FORMULATION OF OSPC ANTIGEN VACCINE FOR THE
PREVENTION AND
; TITLE OF INVENTION: TREATMENT OF LYME DISEASE AND RECOMBINANT METHODS FOR
THE PREPARATION OF SUCH
; TITLE OF INVENTION: ANTIGENS
 FILE REFERENCE: 37974-0023
; CURRENT APPLICATION NUMBER: US/08/671,548C
; CURRENT FILING DATE: 2001-08-30
; PRIOR APPLICATION NUMBER: US 08/284,667
; PRIOR FILING DATE: 1994-08-19
; PRIOR APPLICATION NUMBER: 08/053,863
; PRIOR FILING DATE: 1993-04-29
; PRIOR APPLICATION NUMBER: PCT/EP94/01365
; PRIOR FILING DATE: 1994-04-29
; NUMBER OF SEQ ID NOS: 78
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 74
   LENGTH: 11
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   ORGANISM: Borrelia sp.
US-08-671-548C-74
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Qy
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Db
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RESULT 73
US-09-104-337A-525
; Sequence 525, Application US/09104337A
 Patent No. 6492160
    GENERAL INFORMATION:
         APPLICANT: Winter, Gregory Paul
                    Griffiths, Andrew David
                    Williams, Samuel Cameron
                    Waterhouse, Peter
                    Nissim, Ahuva
                    Johnson, Kevin Stuart
                    Smith, Andrew John Hammond
         TITLE OF INVENTION: Methods for producing members of specific
                             binding pairs
         NUMBER OF SEQUENCES: 600
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Audrey L. Bartnicki
              STREET: Marshall, Gerstein & Borun
                      6300 Sears Tower, 233 South Wacker Drive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60606-6402
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/104,337A
              FILING DATE: 25-Jun-1998
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/350,260
              FILING DATE: 05-DEC-1994
              APPLICATION NUMBER: GB 9110549.4
              FILING DATE: 15-MAY-1991
              APPLICATION NUMBER: GB 9206318.9
              FILING DATE: 24-MAR-1992
              APPLICATION NUMBER: PCT/GB92/00883
              FILING DATE: 15-MAY-1992
              APPLICATION NUMBER: PCT/GB93/00605
              FILING DATE: 24-MAR-1993
              APPLICATION NUMBER: US 08/150,002
              FILING DATE: 31-MAR-1994
              APPLICATION NUMBER: US 08/307,619
              FILING DATE: 16-SEP-1994
         ATTORNEY/AGENT INFORMATION:
              NAME: Bartnicki, Audrey L.
              REGISTRATION NUMBER: 40,499
              REFERENCE/DOCKET NUMBER: 28111/32372A
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312-474-6300
    INFORMATION FOR SEQ ID NO: 525:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
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TOPOLOGY: linear
;
        SEQUENCE DESCRIPTION: SEQ ID NO: 525:
US-09-104-337A-525
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Qy
             111
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Db
RESULT 74
US-09-266-764-17
; Sequence 17, Application US/09266764
; Patent No. 6545139
; GENERAL INFORMATION:
  APPLICANT: Baylor College of Medicine
  TITLE OF INVENTION: Compositions and Methods For the Treatment and
  TITLE OF INVENTION: Prevention of Metastatic Disorders
  FILE REFERENCE: 00A146.0122
  CURRENT APPLICATION NUMBER: US/09/266,764
  CURRENT FILING DATE: 1999-03-12
   PRIOR APPLICATION NUMBER: 60/077,934
  PRIOR FILING DATE: 1998-03-13
  NUMBER OF SEQ ID NOS: 27
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 17
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Mus sp.
US-09-266-764-17
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Qу
              111
            8 KKP 10
Db
RESULT 75
US-09-380-836-7
; Sequence 7, Application US/09380836
; Patent No. 6551775
; GENERAL INFORMATION:
   APPLICANT: Lifton, Richard P.
   APPLICANT: Chang, Sue S.
   APPLICANT: Rossier, Bernard C.
   TITLE OF INVENTION: Method to Diagnose and Treat Pathological Conditions
   TITLE OF INVENTION: Resulting from Deficient Ion Transport such as
   TITLE OF INVENTION: Pseudohypoaldosteronism Type-1
   FILE REFERENCE: 44574-5018-US
   CURRENT APPLICATION NUMBER: US/09/380,836
  CURRENT FILING DATE: 2000-04-27
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; PRIOR APPLICATION NUMBER: US 60/040,171
; PRIOR FILING DATE: 1997-03-11
; PRIOR APPLICATION NUMBER: PCT/US98/04681
; PRIOR FILING DATE: 1998-03-11
; NUMBER OF SEQ ID NOS: 106
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: Segment of beta ENaC protein
US-09-380-836-7
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Db
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Search completed: April 8, 2004, 15:52:05 Job time: 13.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 8.61538 Seconds

(without alignments)

122.816 Million cell updates/sec

Title: US-09-787-443A-1

Perfect score: 11

Sequence: 1 ASKKPKRNIKA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 283366 seqs, 96191526 residues

Word size:

Total number of hits satisfying chosen parameters: 226

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database : PIR_78:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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No.	Score	Match	Length	DB	ID	Description
1	3	27.3	11	2	S42449	ant1 protein - pha
2	3	27.3	11	2	B41835	translation elonga
3	3	27.3	11	2	S19775	wound-induced prot
4	2	18.2	11	1	XASNBA	bradykinin-potenti
5	2	18.2	11	1	SPHO	substance P - hors
6	2	18.2	11	1	EOOCC	eledoisin - curled
7	2	18.2	11	1	A60654	substance P - guin
8	2	18.2	11	1	EOOC	eledoisin - musky
9	2	18.2	11	2	s32575	ribosomal protein
10	2	18.2	11	2	A38841	rhodopsin homolog
11	2	18.2	11	2	C53652	rhlR protein - Pse
12	2	18.2	11	2	A26930	ermG leader peptid
13	2	18.2	11	2	YHRT	morphogenetic neur

	14	2	18.2	11	2	YHHU	morphogenetic neur
	15	2	18.2	11	2	YHBO	morphogenetic neur
	16	2	18.2	11	2	YHXAE	morphogenetic neur
	17	2	18.2	11	2	YHJFHY	morphogenetic neur
	18	2	18.2	11	2	B26744	megascoliakinin -
	19	2	18.2	11	2	S23308	substance P - rain
	20	2	18.2	11	2	S23306	substance P - Atla
	21	2	18.2	11	2	A61033	ranatachykinin A -
	22	2	18.2	11	2	D61033	ranatachykinin D -
	23	2	18.2	11	2	JQ0395	hypothetical prote
	24	2	18.2	11	2	PQ0231	beta-glucosidase (
	25	2	18.2	11	2	S66606	quinoline 2-oxidor
	26	2	18.2	11	2	S42587	celF protein - Esc
	27	2	18.2	11	2	S33782	acetolactate synth
	28	2	18.2	11	2	PC2372	58K heat shock pro
	29	2	18.2	11	2	S33519	probable secreted
	30	2	18.2	11	2	PT0081	protein QA300023 -
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	32	2	18.2	11	2	PC4267	ribosomal protein
	33	2	18.2	11	2	PQ0731	unidentified 5.7/3
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	35	2	18.2	11	2	S33300	probable substance
	36	2	18.2	11	2	D42965	talin - chicken (f
	37	2	18.2	11	2	I54193	Rhesus blood group
	38	2	18.2	11	2	s57575	T cell receptor V-
	39	2	18.2	11	2	S68637	acetylcholinestera
	40	2	18.2	11	2	s78765	ribosomal protein
	41	2	18.2	11	2	s54347	tubulin beta chain
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	44	2	18.2	11	2	C38887	T-cell receptor ga
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	48	2	18.2	11	2	S78422	ribosomal protein
	49	2	18.2	11	2	PH0939	T-cell receptor be
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	64	2	18.2	11	2	S60294	tubulin 2 beta-3 c
	65	2	18.2	11	4	PC2390	trichorozin I - fu
	66	2	18.2	11	4	PC2392	trichorozin III -
•	67	2	18.2	11	4	S52252	hypothetical prote
	68	2	18.2	11	4	154081	retinoic acid rece
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74	1	9.1	11	2	G42762	proteasome endopep
75	1	9.1	11	2	A33917	dihydroorotase (EC
76	1	9.1	11	2	B49164	chromogranin-B - r
77	1.	9.1	11	2	JN0023	substance P - chic
78	1	9.1	11	2	A40693	transgelin - sheep
79	1	9.1	11	2	PQ0682	photosystem I 17.5
80	1	9.1	11	2	S00616	parasporal crystal
81	1	9.1	11	2	S09074	cytochrome P450-4b
82	. 1	9.1	11	2	A57458	gene Gax protein -
83	1	9.1	11	2	D60409	kassinin-like pept
84	1	9.1	11	2	F60409	substance P-like p
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86	1	9.1	11	2	A61365	phyllokinin - Rohd
87	1	9.1	11	2	B60409	kassinin-like pept
88	1	9.1	11	2	C60409	kassinin-like pept
89	1	9.1	11	2	S07203	uperolein - frog (
90	1	9.1	11	2	S07207	Crinia-angiotensin
91	1	9.1	11	2	S07201	physalaemin – frog
92	1	9.1	11	2	B58501	24K kidney and bla
93	1	9.1	11	2	D58502	27K bile and gallb
94	1	9.1	11	2	A58502	38K kidney stone p
95	1	9.1	11	2	C58501	42K bile stone pro
96	1	9.1	11	2	F58501	43.5K bile stone p
97	1	9.1	11	2	S58244	pyrroloquinoline q
98	1	9.1	11	2	S04875	nifS protein - Bra
99	1	9.1	11	2	I41138	acetyl ornithine d
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ALIGNMENTS

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C; Species: phage P7
C;Date: 07-Sep-1994 #sequence revision 26-May-1995 #text_change 08-Oct-1999
C; Accession: S42449
R; Citron, M.; Schuster, H.
Cell 62, 591-598, 1990
A; Title: The c4 repressors of bacteriophages P1 and P7 are antisense RNAs.
A; Reference number: S42448; MUID: 90335968; PMID: 1696181
A; Accession: S42449
A; Status: preliminary; translation not shown
A; Molecule type: DNA
A; Residues: 1-11 <CIT>
A; Cross-references: EMBL: M35139; NID: g215705; PIDN: AAA32437.1; PID: g215707
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Qу
            3 KKP 5
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C; Species: Agkistrodon blomhoffi (mamushi)

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B41835
translation elongation factor EF-G homolog - Bacillus subtilis (fragment)
C; Species: Bacillus subtilis
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 05-Dec-1997
C; Accession: B41835
R; Mitchell, C.; Morris, P.W.; Vary, J.C.
J. Bacteriol. 174, 2474-2477, 1992
A; Title: Identification of proteins phosphorylated by ATP during sporulation of
Bacillus subtilis.
A; Reference number: A41835; MUID: 92210489; PMID: 1556067
A; Accession: B41835
A; Molecule type: protein
A; Residues: 1-11 <MIT>
A; Note: this protein is phosphorylated during stationary phase but not during
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C; Keywords: phosphoprotein
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Qy
              111
            7 RNI 9
Dh
RESULT 3
S19775
wound-induced protein - tomato (fragment)
C; Species: Lycopersicon esculentum (tomato)
C;Date: 30-Jun-1992 #sequence revision 30-Jun-1992 #text change 09-Sep-1997
C; Accession: S19775
R; Parsons, B.L.
submitted to the EMBL Data Library, May 1991
A; Reference number: S19773
A; Accession: S19775
A; Molecule type: mRNA
A; Residues: 1-11 < PAR>
A; Cross-references: EMBL: X59884; NID: g19323; PID: g19324
                           27.3%; Score 3; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 2.9e+03;
  Best Local Similarity
             3; Conservative
                                  0; Mismatches
                                                    0;
                                                        Indels
                                                                    0; Gaps
                                                                                 0;
            2 SKK 4
Qу
              \mathbf{I} \mathbf{I} \mathbf{I}
Db
            4 SKK 6
RESULT 4
XASNBA
bradykinin-potentiating peptide B - mamushi
```

```
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 08-Dec-1995
C; Accession: A01254
R; Kato, H.; Suzuki, T.
Proc. Jpn. Acad. 46, 176-181, 1970
A; Reference number: A01254
A; Accession: A01254
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Note: the sequence of the natural peptide was confirmed by the synthesis and
analysis of a peptide having the identical structure and biological properties
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; bradykinin; pyroglutamic
acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
  Matches
            2: Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            5 PK 6
Qу
              \mathbf{I}
            7 PK 8
Dh
RESULT 5
SPHO
substance P - horse
C; Species: Equus caballus (domestic horse)
C; Date: 23-Oct-1981 #sequence revision 23-Oct-1981 #text change 23-Aug-1996
C; Accession: A01558
R; Studer, R.O.; Trzeciak, A.; Lergier, W.
Helv. Chim. Acta 56, 860-866, 1973
A; Title: Isolierung und Aminosaeuresequenz von Substanz P aus Pferdedarm.
A; Reference number: A01558
A; Accession: A01558
A; Molecule type: protein
A; Residues: 1-11 <STU>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
                                0; Mismatches
             2; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
            5 PK 6
Qy
              \mathbf{I}
            2 PK 3
Db
RESULT 6
EOOCC
eledoisin - curled octopus
C; Species: Eledone cirrosa, Ozaena cirrosa (curled octopus)
C; Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 20-Mar-1998
C; Accession: B01561; A01561
R; Anastasi, A.; Erspamer, V.
```

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Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: B01561
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
  Matches
            2; Conservative
            2 SK 3
Qу
              \perp
            3 SK 4
Db
RESULT 7
A60654
substance P - quinea pig
C; Species: Cavia porcellus (guinea pig)
C;Date: 14-May-1993 #sequence revision 27-Jun-1994 #text change 08-Dec-1995
C; Accession: A60654
R; Murphy, R.
Neuropeptides 14, 105-110, 1989
A; Title: Primary amino acid sequence of quinea-pig substance P.
A; Reference number: A60654; MUID: 90044685; PMID: 2478925
A; Accession: A60654
A; Molecule type: protein
A; Residues: 1-11 <MUR>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
                              0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            2; Conservative
            5 PK 6
Qу
              11
            2 PK 3
Db
RESULT 8
EOOC
eledoisin - musky octopus
C; Species: Eledone moschata, Ozaena moschata (musky octopus)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 20-Mar-1998
C; Accession: A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
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A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: A01561
A; Molecule type: protein
A; Residues: 1-11 < ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F:1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                0; Mismatches
                                                                              0;
             2; Conservative
                                                   0; Indels
                                                                  0; Gaps
            2 SK 3
Qу
              3 SK 4
RESULT 9
S32575
ribosomal protein S2, plastid - squawroot plastid (fragment)
C; Species: plastid Conopholis americana (squawroot)
C;Date: 19-Mar-1997 #sequence_revision 25-Apr-1997 #text_change 13-Aug-1999
C; Accession: S32575
R; Taylor, G.W.; Wolfe, K.H.; Morden, C.W.; dePamphilis, C.W.; Palmer, J.D.
Curr. Genet. 20, 515-518, 1991
A; Title: Lack of a functional plastid tRNA(Cys) gene is associated with loss of
photosynthesis in a lineage of parasitic plants.
A; Reference number: S32575; MUID: 92145776; PMID: 1723664
A:Accession: S32575
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <TAY>
A; Cross-references: EMBL: X64567; NID: q11275; PIDN: CAA45868.1; PID: q11276
C; Genetics:
A; Gene: rps2
A; Genome: plastid
C; Superfamily: Escherichia coli ribosomal protein S2
C; Keywords: plastid; protein biosynthesis; ribosome
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
             2; Conservative
                                                                  0; Gaps
                                                                               0;
  Matches
                               0; Mismatches
                                                    0; Indels
            8 NI 9
Qу
              \perp1
Db
            7 NI 8
RESULT 10
A38841
rhodopsin homolog - squid (Watasenia scintillans) (fragment)
N; Alternate names: visual pigment protein
C; Species: Watasenia scintillans (sparkling enope)
```

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C;Date: 17-Jul-1992 #sequence revision 17-Jul-1992 #text_change 31-Oct-1997
C; Accession: A38841
R; Seidou, M.; Kubota, I.; Hiraki, K.; Kito, Y.
Biochim. Biophys. Acta 957, 318-321, 1988
A; Title: Amino acid sequence of the retinal binding site of squid visual
A; Reference number: PT0063; MUID: 89051045; PMID: 3191148
A; Accession: A38841
A; Molecule type: protein
A; Residues: 1-11 <SEI>
C; Superfamily: vertebrate rhodopsin
C; Keywords: chromoprotein; retinal
F;3/Binding site: retinal (Lys) (covalent) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                                                              0;
                                                                 0; Gaps
  Matches
             2; Conservative
                                0; Mismatches
                                                 0; Indels
            1 AS 2
Qy
              4 AS 5
Db
RESULT 11
C53652
rhlR protein - Pseudomonas aeruginosa (fragment)
C; Species: Pseudomonas aeruginosa
C;Date: 21-Jul-1995 #sequence_revision 28-Jul-1995 #text_change 21-Aug-1998
C; Accession: C53652
R;Ochsner, U.A.; Fiechter, A.; Reiser, J.
J. Biol. Chem. 269, 19787-19795, 1994
A; Title: Isolation, characterization, and expression in Escherichia coli of the
Pseudomonas aeruginosa rhlAB genes encoding a rhamnosyltransferase involved in
rhamnolipid biosurfactant synthesis.
A; Reference number: A53652; MUID: 94327521; PMID: 8051059
A; Accession: C53652
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <OCH>
A; Cross-references: GB:L28170
C; Superfamily: sdiA regulatory protein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
            2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            7 RN 8
Qу
              2 RN 3
Db
RESULT 12
A26930
ermG leader peptide 1 - Bacillus sphaericus
C; Species: Bacillus sphaericus
C;Date: 08-Mar-1989 #sequence_revision 08-Mar-1989 #text_change 24-Sep-1999
C; Accession: A26930
```

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R; Monod, M.; Mohan, S.; Dubnau, D.
J. Bacteriol. 169, 340-350, 1987
A; Title: Cloning and analysis of ermG, a new macrolide-lincosamide-streptogramin
B resistance element from Bacillus sphaericus.
A; Reference number: A91840; MUID: 87083389; PMID: 3025178
A; Accession: A26930
A; Molecule type: DNA
A; Residues: 1-11 < MON>
A; Cross-references: GB: M15332; NID: q142881; PIDN: AAA22417.1; PID: q142882
C; Superfamily: unassigned leader peptides
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
             2; Conservative
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0:
            2 SK 3
Qy
              11
            5 SK 6
Db
RESULT 13
YHRT
morphogenetic neuropeptide - rat
C; Species: Rattus norvegicus (Norway rat)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: A01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator by the authors, because it induced head-specific growth
and differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; hypothalamus; intestine; neuropeptide;
pyroglutamic acid
F:1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                          18.2%;
                                  Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            2 SK 3
              \Box
            6 SK 7
Db
```

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RESULT 14
YHHU
morphogenetic neuropeptide - human
C; Species: Homo sapiens (man)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A:Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: B01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.'
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                          18.2%;
                                  Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
             2; Conservative
  Matches
            2 SK 3
Qy
              11:
            6 SK 7
Db
RESULT 15
morphogenetic neuropeptide - bovine
C; Species: Bos primigenius taurus (cattle)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text_change 20-Jun-2000
C; Accession: C01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: C01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
```

FEBS Lett. 131, 317-321, 1981 A; Title: Synthesis of a new neuropeptide, the head activator from hydra. A; Reference number: A91296; MUID: 82050803; PMID: 7297679 A; Contents: annotation; synthesis A; Note: the synthetic peptide was identical with the natural peptide in chemical structure and biological activity C; Comment: This peptide was first isolated from nerve cells of hydra and was called head activator because it induced head-specific growth and differentiation in this animal. It has been found in mammalian intestine and hypothalamus. C; Superfamily: unassigned animal peptides C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine; neuropeptide F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic acid) #status experimental Query Match 18.2%; Score 2; DB 2; Length 11; Best Local Similarity 100.0%; Pred. No. 3.1e+04; 0; Gaps 0; Indels 0; Matches 2; Conservative 0; Mismatches 2 SK 3 Qу 6 SK 7 Db RESULT 16 YHXAE morphogenetic neuropeptide - sea anemone (Anthopleura elegantissima) N; Alternate names: head activator C; Species: Anthopleura elegantissima C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000 C; Accession: A93900; A01427 R; Schaller, H.C.; Bodenmuller, H. Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981 A; Title: Isolation and amino acid sequence of a morphogenetic peptide from hvdra. A; Reference number: A93900 A; Accession: A93900 A; Molecule type: protein A; Residues: 1-11 <SCH> R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C. FEBS Lett. 131, 317-321, 1981 A; Title: Synthesis of a new neuropeptide, the head activator from hydra. A; Reference number: A91296; MUID:82050803; PMID:7297679 A; Contents: annotation; synthesis A; Note: the synthetic peptide was identical with the natural peptide in chemical structure and biological activity C; Comment: This peptide was first isolated from nerve cells of hydra and was called head activator because it induced head-specific growth and differentiation in this animal. It has also been found in mammalian intestine and hypothalamus. C; Superfamily: unassigned animal peptides C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental 18.2%; Score 2; DB 2; Length 11; Query Match Best Local Similarity 100.0%; Pred. No. 3.1e+04;

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Matches
            2; Conservative
                                                    0; Indels
                                 0; Mismatches
                                                                              0;
                                                                  0; Gaps
            2 SK 3
Qу
              | |
            6 SK 7
Db
RESULT 17
YHJFHY
morphogenetic neuropeptide - Hydra attenuata
N; Alternate names: head activator
C; Species: Hydra attenuata
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: B93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
  Matches
             2; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            2 SK 3
Qy
              Db
            6 SK 7
RESULT 18
B26744
megascoliakinin - garden dagger wasp
N; Alternate names: 6-Thr-bradykinin-Lys-Ala
C; Species: Megascolia flavifrons (garden dagger wasp)
C;Date: 08-Mar-1989 #sequence_revision 08-Mar-1989 #text_change 18-Aug-2000
C; Accession: B26744; A28609
R; Yasuhara, T.; Mantel, P.; Nakajima, T.; Piek, T.
Toxicon 25, 527-535, 1987
A; Title: Two kinins isolated from an extract of the venom reservoirs of the
solitary wasp Megascolia flavifrons.
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A; Reference number: A94322; MUID: 87293024; PMID: 3617088
A; Accession: B26744
A; Molecule type: protein
A; Residues: 1-11 <YAS>
R; Nakajima, T.; Piek, T.; Yashuara, T.; Mantel, P.
Toxicon 26, 34, 1988
A; Title: Two kinins isolated from the venom of Megascolia flavifrons.
A; Reference number: A28609
A:Accession: A28609
A; Molecule type: protein
A; Residues: 1-11 <NAK>
C; Superfamily: unassigned animal peptides
C; Keywords: bradykinin; presynaptic neurotoxin; venom
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
             2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                               0;
           10 KA 11
Qy
              \mathbf{I}
Db
           10 KA 11.
RESULT 19
S23308
substance P - rainbow trout
C; Species: Oncorhynchus mykiss (rainbow trout)
C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 18-Aug-2000
C; Accession: S23308
R; Jensen, J.; Conlon, J.M.
Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: S23186; MUID: 92298992; PMID: 1376687
A; Accession: S23308
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Superfamily: unassigned animal peptides
C; Keywords: neuropeptide; amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            4 KP 5
              \mathbf{I}
```

1 KP 2

Db

```
substance P - Atlantic cod
C; Species: Gadus morhua (Atlantic cod)
C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 18-Aug-2000
C; Accession: S23306
R; Jensen, J.; Conlon, J.M.
Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: S23186; MUID: 92298992; PMID: 1376687
A; Accession: S23306
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Superfamily: unassigned animal peptides
C; Keywords: neuropeptide; amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
             2; Conservative 0; Mismatches
                                                                  0; Gaps
                                                                               0;
                                                    0; Indels
            4 KP 5
Qу
              11
Db
            1 KP 2
RESULT 21
A61033
ranatachykinin A - bullfrog
C; Species: Rana catesbeiana (bullfrog)
C;Date: 31-Dec-1993 #sequence revision 31-Dec-1993 #text change 18-Aug-2000
C; Accession: A61033; JE0426
R; Kangawa, K.; Kozawa, H.; Hino, J.; Minamino, N.; Matsuo, H.
Regul. Pept. 42(Suppl.1), S12, 1992
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
A; Reference number: A61033
A; Accession: A61033
A; Molecule type: protein
A; Residues: 1-11 <KAN>
R; Kozawa, H.; Hino, J.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 177, 588-595, 1991
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
A; Reference number: JE0426; MUID: 91254337; PMID: 2043143
A; Accession: JE0426
A; Molecule type: protein
A; Residues: 1-11 < KOZ>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; neuropeptide
F;11/Modified site: amidated carboxyl end (Met) #status experimental
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S23306

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Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            4 KP 5
Qу
              11
            1 KP 2
Db
RESULT 22
D61033
ranatachykinin D - bullfrog
C; Species: Rana catesbeiana (bullfrog)
C; Date: 31-Dec-1993 #sequence revision 31-Dec-1993 #text change 18-Aug-2000
C; Accession: D61033; JE0429
R; Kangawa, K.; Kozawa, H.; Hino, J.; Minamino, N.; Matsuo, H.
Regul. Pept. 42(Suppl.1), S12, 1992
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
A; Reference number: A61033
A; Accession: D61033
A; Molecule type: protein
A; Residues: 1-11 <KAN>
R; Kozawa, H.; Hino, J.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 177, 588-595, 1991
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
A; Reference number: JE0426; MUID: 91254337; PMID: 2043143
A; Accession: JE0429
A; Molecule type: protein
A; Residues: 1-11 < KOZ>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; neuropeptide.
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            4 KP 5
Qу
              11
Db
            1 KP 2
RESULT 23
J00395
hypothetical protein (nodB 3' region) - Azorhizobium caulinodans
N; Alternate names: hypothetical 1.4K protein
C; Species: Azorhizobium caulinodans
A; Note: host Sesbania rostrata
C;Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 03-Feb-1994
C; Accession: JQ0395
R; Goethals, K.; Gao, M.; Tomekpe, K.; Van Montagu, M.; Holsters, M.
Mol. Gen. Genet. 219, 289-298, 1989
A; Title: Common nodABC genes in Nod locus 1 of Azorhizobium caulinodans:
nucleotide sequence and plant-inducible expression.
```

```
A; Reference number: JQ0393; MUID: 90136519; PMID: 2615763
A; Accession: JQ0395
A; Molecule type: DNA
A; Residues: 1-11 <GOE>
A; Cross-references: GB:L18897
A; Experimental source: strain ORS571
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
                                 0; Mismatches
             2; Conservative
                                                    0;
                                                        Indels
                                                                   0; Gaps
                                                                               0;
            3 KK 4
Qу
              11
Db
            6 KK 7
RESULT 24
PQ0231
beta-glucosidase (EC 3.2.1.21) - Cellvibrio gilvus (fragment)
C; Species: Cellvibrio gilvus
C; Date: 31-Mar-1992 #sequence revision 31-Mar-1992 #text change 07-May-1999
C; Accession: PQ0231
R; Kashiwagi, Y.; Iijima, C.; Sasaki, T.; Taniguchi, H.
Agric. Biol. Chem. 55, 2553-2559, 1991
A; Title: Characterization of a beta-glucosidase encoded by a gene from
Cellvibrio gilvus.
A; Reference number: PQ0231; MUID: 92144103; PMID: 1368758
A; Accession: PQ0231
A; Molecule type: protein
A; Residues: 1-11 <KAS>
C; Keywords: glycosidase; hydrolase; polysaccharide degradation
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
Qу
            4 KP 5
Db
           10 KP 11
RESULT 25
S66606
quinoline 2-oxidoreductase alpha chain - Comamonas testosteroni (fragment)
C; Species: Comamonas testosteroni
C; Date: 15-Feb-1997 #sequence revision 13-Mar-1997 #text change 17-Mar-1999
C; Accession: S66606
R; Schach, S.; Tshisuaka, B.; Fetzner, S.; Lingens, F.
Eur. J. Biochem. 232, 536-544, 1995
A; Title: Quinoline 2-oxidoreductase and 2-oxo-1, 2-dihydroquinoline 5,6-
dioxygenase from Comamonas testosteroni 63. The first two enzymes in quinoline
and 3-methylquinoline degradation.
A; Reference number: S66606; MUID: 96035889; PMID: 7556204
A; Accession: S66606
A; Molecule type: protein
A; Residues: 1-11 <SCH>
A; Experimental source: strain 63
```

```
Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
             2; Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            4 KP 5
Qу
              II
            9 KP 10
Db
RESULT 26
S42587
celF protein - Escherichia coli (fragment)
C; Species: Escherichia coli
C;Date: 25-Dec-1994 #sequence revision 10-Nov-1995 #text change 10-Nov-1995
C; Accession: S42587
R; Guzzo, A.; DuBow, M.S.
Mol. Gen. Genet. 242, 455-460, 1994
A; Title: A luxAB transcriptional fusion to the cryptic celF gene of Escherichia
coli displays increased luminescence in the presence of nickel.
A; Reference number: S42587; MUID: 94166755; PMID: 8121401
A; Accession: S42587
A; Molecule type: DNA
A; Residues: 1-11 <GUZ>
C: Genetics:
A; Gene: celF
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
            7 RN 8
Qу
              11
            2 RN 3
Db
RESULT 27
S33782
acetolactate synthase (EC 4.1.3.18) small chain, valine-sensitive - Serratia
marcescens (fragment)
C; Species: Serratia marcescens
C; Date: 19-Mar-1997 #sequence revision 24-Mar-1999 #text change 24-Mar-1999
C; Accession: S33782
R; Yang, J.H.; Kim, S.S.
Biochim. Biophys. Acta 1157, 178-184, 1993
A; Title: Purification and characterization of the valine sensitive acetolactate
synthase from Serratia marcescens ATCC 25419.
A; Reference number: S33781; MUID: 93283409; PMID: 8507653
A; Accession: S33782
A; Molecule type: protein
A; Residues: 1-11 < YAN>
A; Experimental source: ATCC 25419
C; Complex: heterotetramer; two small and two large chains
C; Function:
A; Description: catalyzes the condensation of pyruvate and alpha-ketobutyrate to
form alpha-aceto-alpha-hydroxybutyrate
A; Pathway: valine, leucine, and isoleucine biosynthesis
```

```
A; Note: this isoenzyme exhibits homotropic allosterism with pyruvate
C; Keywords: branched-chain amino acid biosynthesis; carbon-carbon lyase;
flavoprotein; heterotetramer; magnesium; oxo-acid-lyase; valine inhibition
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                 0; Mismatches
            2; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            7 RN 8
Qу
              11
            6 RN 7
Db
RESULT 28
PC2372
58K heat shock protein groEL [similarity] - Bacillus cereus (strain ts-4)
C; Species: Bacillus cereus
C;Date: 20-Apr-2000 #sequence revision 20-Apr-2000 #text change 20-Apr-2000
C; Accession: PC2372
R; Matsuno, K.; Miyamoto, T.; Yamaguchi, K.; Sayed, M.A.; Kajiwara, T.; Hatano,
s.
Biosci. Biotechnol. Biochem. 59, 231-235, 1995
A; Title: Identification of DNA-binding proteins changed after induction of
sporulation in Bacillus cereus.
A; Reference number: PC2369; MUID: 95218265; PMID: 7766022
A; Accession: PC2372
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <MAS>
C; Keywords: heat shock; molecular chaperone; stress-induced protein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
                                 0; Mismatches
                                                   0; Indels
                                                                              0;
 Matches
             2; Conservative
                                                                      Gaps
            9 IK 10
Qу
              11
            4 IK 5
RESULT 29
S33519
probable secreted protein - Acholeplasma laidlawii (fragment)
C; Species: Acholeplasma laidlawii
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text change 22-Oct-1999
C; Accession: S33519
R; Boyer, M.J.; Jarhede, T.K.; Tegman, V.; Wieslander, A.
submitted to the EMBL Data Library, June 1993
A; Description: Sequence regions from Acholeplasma laidlawii which restore export
of beta-lactamase in Escherichia coli.
A; Reference number: S33518
A; Accession: S33519
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <BOY>
```

A;Cross-references: EMBL:Z22875; NID:g311706; PIDN:CAA80495.1; PID:g311708

```
18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
                                 0; Mismatches
  Matches
             2; Conservative
          . 3 KK 4
Qу
              2 KK 3
Db
RESULT 30
PT0081
protein QA300023 - Arabidopsis thaliana (fragment)
C; Species: Arabidopsis thaliana (mouse-ear cress)
C; Date: 07-Feb-1996 #sequence revision 19-Apr-1996 #text change 24-Nov-1999
C; Accession: PT0081
R;Tsugita, A.; Kamo, M.; Kawakami, M.; Ohki, Y.
submitted to JIPID, December 1995
A; Description: Two dimensional electrophoresis of plant proteins and
standardization of the gel patterns.
A; Reference number: PN0173
A; Accession: PT0081
A; Molecule type: protein
A; Residues: 1-11 <TSU>
A; Experimental source: Leaf
C; Keywords: acetylated amino end
F;1/Modified site: acetylated amino end (Ser) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
  Matches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
             2; Conservative
                                 0; Mismatches
            2 SK 3
Qу
              \perp
            1 SK 2
Db
RESULT 31
G61497
seed protein ws-23 - winged bean (fragment)
C; Species: Psophocarpus tetragonolobus (winged bean)
C; Date: 07-Oct-1994 #sequence revision 07-Oct-1994 #text change 07-Oct-1994
C; Accession: G61497
R; Hirano, H.
J. Protein Chem. 8, 115-130, 1989
A; Title: Microsequence analysis of winged bean seed proteins electroblotted from
two-dimensional gel.
A; Reference number: A61491; MUID: 89351606; PMID: 2765119
A; Accession: G61497
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HIR>
C; Keywords: glycoprotein; seed
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
                                                    0;
                                                       Indels
                                                                  0; Gaps
  Matches
             2; Conservative
```

```
\perp
            3 SK 4
Db
RESULT 32
PC4267
ribosomal protein L12.1 - rice (fragment)
C; Species: Oryza sativa (rice)
C;Date: 28-May-1997 #sequence revision 18-Jul-1997 #text change 18-Jul-1997
C; Accession: PC4267
R; Kawakami, T.; Kamo, M.; Chen, M.C.; Tsugita, A.
submitted to JIPID, April 1997
A; Reference number: PC4267
A; Accession: PC4267
A; Molecule type: protein
A; Residues: 1-11 <KAW>
A; Experimental source: strain Japonica Nihonbare
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3.1e+04;
            2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            5 PK 6
Qу
              11
            7 PK 8
Db
RESULT 33
PQ0731
unidentified 5.7/35K protein [imported] - rice (fragment)
C; Species: Oryza sativa (rice)
C;Date: 20-Apr-2000 #sequence revision 20-Apr-2000 #text change 20-Apr-2000
C; Accession: PQ0731
R; Komatsu, S.; Kajiwara, H.; Hirano, H.
Theor. Appl. Genet. 86, 935-942, 1993
A; Title: A rice protein library; a data-file of rice proteins separated by two-
dimensional electrophoresis.
A; Reference number: PQ0696
A; Accession: PQ0731
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 < KOM>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
                              0; Mismatches 0; Indels
  Matches
            2; Conservative
                                                                  0; Gaps
                                                                              0;
            5 PK 6
Qу
              \perp
Dh
            6 PK 7
RESULT 34
A34135
DNA-binding protein p - Crithidia fasciculata mitochondrion (fragment)
```

2 SK 3

Qу

```
C; Species: mitochondrion Crithidia fasciculata
C;Date: 30-Sep-1991 #sequence revision 30-Sep-1991 #text change 07-Dec-1999
C; Accession: A34135
R; Tittawella, I.
FEBS Lett. 260, 57-61, 1990
A; Title: Kinetoplast DNA-aggregating proteins from the parasitic protozoan
Crithidia fasciculata.
A; Reference number: A34135
A; Accession: A34135
A; Molecule type: protein
A: Residues: 1-11 <TIT>
C; Genetics:
A; Genome: mitochondrion
A; Genetic code: SGC6
C; Keywords: mitochondrion
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
 Matches
           10 KA 11
Qу
              9 KA 10
Db
RESULT 35
S33300
probable substance P - smaller spotted catshark
C; Species: Scyliorhinus canicula (smaller spotted catshark, smaller spotted
dogfish)
C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 24-Mar-1999
C; Accession: S33300
R; Waugh, D.; Wang, Y.; Hazon, N.; Balment, R.J.; Conlon, J.M.
Eur. J. Biochem. 214, 469-474, 1993
A; Title: Primary structures and biological activities of substance-P-related
peptides from the brain of the dogfish, Scyliorhinus canicula.
A; Reference number: S33300; MUID: 93292508; PMID: 7685693
A; Accession: S33300
A; Molecule type: protein
A; Residues: 1-11 <WAU>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
  Matches
            4 KP 5
Qу
              11
            1 KP 2
Db
```

```
RESULT 36
D42965
talin - chicken (fragment)
C; Species: Gallus gallus (chicken)
C; Date: 05-Jan-1996 #sequence revision 05-Jan-1996 #text change 05-Jan-1996
C; Accession: D42965
R; Hagmann, J.; Grob, M.; Burger, M.M.
J. Biol. Chem. 267, 14424-14428, 1992
A; Title: The cytoskeletal protein talin is O-glycosylated.
A; Reference number: A42965; MUID: 92332560; PMID: 1629228
A; Accession: D42965
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HAG>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                   0:
                                                                       Gaps
                                                                               0;
  Matches
             2; Conservative
            8 NI 9
Qу
              \mathbf{1}
Dh
            1 NI 2
RESULT 37
I54193
Rhesus blood group CcEe protein - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 06-Sep-1996 #sequence revision 06-Sep-1996 #text change 21-Jul-2000
C; Accession: I54193
R; Cherif-Zahar, B.; Le Van Kim, C.; Rouillac, C.; Raynal, V.; Cartron, J.P.;
Colin, Y.
Genomics 19, 68-74, 1994
A; Title: Organization of the gene (RHCE) encoding the human blood group RhCcEe
antigens and characterization of the promoter region.
A; Reference number: I54193; MUID: 94245182; PMID: 8188244
A; Accession: I54193
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < RES>
A; Cross-references: GB: S70456; NID: q546795; PIDN: AAD14061.1; PID: q4261761
C: Genetics:
A; Gene: GDB: RHCE
A; Cross-references: GDB: 229957; OMIM: 111700
A; Map position: 1p36.2-1p34
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.1e+04;
            2; Conservative
                                0; Mismatches
                                                     0; Indels
                                                                       Gaps
                                                                                0;
            2 SK 3
Qу
Db
            3 SK 4
```

```
S57575
T cell receptor V-J junctional alpha chain region - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 19-Oct-1995 #sequence revision 17-Nov-1995 #text change 05-Nov-1999
C:Accession: S57575
R; Burrows, S.R.; Silins, S.L.; Moss, D.J.; Khanna, R.; Misko, I.S.; Argaet, V.P.
submitted to the EMBL Data Library, June 1995
A; Description: T cell receptor repertoire for a viral epitope in humans is
diversified by tolerance to a background MHC antigen.
A; Reference number: S57494
A; Accession: S57575
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <BUR>
A; Cross-references: EMBL: Z49953; NID: g887510; PIDN: CAA90224.1; PID: g887511
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                                                              0:
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
            1 AS 2
Qу
             2 AS 3
Db
RESULT 39
S68637
acetylcholinesterase (EC 3.1.1.7) P chain - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 04-Dec-1997 #sequence revision 04-Dec-1997 #text_change 30-Jan-1998
C; Accession: S68637
R; Boschetti, N.; Brodbeck, U.
FEBS Lett. 380, 133-136, 1996
A; Title: The membrane anchor of mammalian brain acetylcholinesterase consists of
a single glycosylated protein of 22 kDa.
A; Reference number: S68637; MUID: 96181683; PMID: 8603722
A; Accession: S68637
A; Molecule type: protein
A; Residues: 1-11 <BOS>
A; Experimental source: brain
C; Keywords: carboxylic ester hydrolase; glycoprotein; membrane protein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                0; Mismatches
                                                                  0; Gaps
                                                                              0;
                                                  0; Indels
  Matches
            2; Conservative
Qу
            2 SK 3
              11
Db
            7 SK 8
RESULT 40
S78765
ribosomal protein MRP-S24, mitochondrial - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C; Date: 20-Sep-1999 #sequence revision 20-Sep-1999 #text change 20-Sep-1999
```

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R; Graack, H.R.
submitted to the Protein Sequence Database, July 1999
A; Reference number: S78760
A; Accession: S78765
A; Molecule type: protein
A; Residues: 1-11 <GRA>
C; Keywords: mitochondrion
F:1-11/Product: ribosomal protein MRP-S24 (fragment) #status experimental <MAT>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
            2; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            5 PK 6
Qу
             Db
            6 PK 7
RESULT 41
S54347
tubulin beta chain - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C; Date: 27-Oct-1995 #sequence revision 30-Jan-1998 #text change 07-May-1999
C; Accession: S54347
R; Okazaki, K.; Obata, N.H.; Inoue, S.; Hidaka, H.
Biochem. J. 306, 551-555, 1995
A; Title: S100-beta is a target protein of neurocalcin delta, an abundant isoform
in glial cells.
A; Reference number: S54343; MUID: 95194333; PMID: 7887910
A; Accession: S54347
A; Molecule type: protein
A; Residues: 1-11 <OKA>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3.1e+04;
                                0; Mismatches
                                                 0; Indels 0; Gaps
                                                                             0;
 Matches 2; Conservative
            9 IK 10
Qу
              | |
           10 IK 11
Db
RESULT 42
PN0044
protein kinase C inhibitor I - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 29-Oct-1997 #sequence revision 29-Oct-1997 #text change 23-Jan-1998
C; Accession: PN0044
R; Kato, H.
Kawasaki Igakkaishi 22, 245-259, 1996
A; Title: Analysis of proteins isolated by two dimensional electrophoresis of
mouse neuroblastoma cells.
A; Reference number: PN0041
A; Accession: PN0044
A; Molecule type: protein
A; Residues: 1-11 <KAT>
```

C; Accession: S78765

```
A; Experimental source: neuroblastoma cell
C; Comment: The molecular mass is 13,900 and the pI is 6.36. The amino-terminus
is blocked.
C; Keywords: brain
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                                  0; Indels
                               0; Mismatches
                                                                  0; Gaps
                                                                              0;
             2; Conservative
  Matches
           10 KA 11
Qy
            1 KA 2
Db
RESULT 43
PT0217
T-cell receptor beta chain V-J region (4-1-E.2) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 30-May-1997
C; Accession: PT0217
R; Nakano, N.; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A; Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not
restricted in non-obese diabetic mice.
A; Reference number: PT0209; MUID: 91217621; PMID: 1902501
A; Accession: PT0217
A; Molecule type: mRNA
A; Residues: 1-11 <NAK>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            2; Conservative
  Matches
            1 AS 2
Qу
            2 AS 3
Db
RESULT 44
C38887
T-cell receptor gamma chain (5a.3) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 07-May-1999
C; Accession: C38887
R; Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein,
J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A; Title: Rearrangement and junctional-site sequence analyses of T-cell receptor
gamma genes in intestinal intraepithelial lymphocytes from murine athymic
chimeras.
A; Reference number: A41946; MUID: 92049316; PMID: 1658619
A; Accession: C38887
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 1-11 <WHE>
C; Keywords: T-cell receptor
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                                                    0; Indels
            1 AS 2
Qу
              11
Db
            1 AS 2
RESULT 45
I41946
T-cell receptor gamma chain (5t.1) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 07-May-1999
C; Accession: I41946
R; Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein,
J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A; Title: Rearrangement and junctional-site sequence analyses of T-cell receptor
gamma genes in intestinal intraepithelial lymphocytes from murine athymic
chimeras.
A; Reference number: A41946; MUID: 92049316; PMID: 1658619
A; Accession: I41946
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 1-11 <WHE>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
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                                   Pred. No. 3.1e+04;
  Best Local Similarity
  Matches
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                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0;
                                                                    Gaps
                                                                              0;
            1 AS 2
Qу
              11
Db
            1 AS 2
RESULT 46
PD0441
translation elongation factor TU-like protein P43, mitochondrial - mouse
(fragment)
C; Species: Mus musculus (house mouse)
C;Date: 21-Aug-1998 #sequence revision 21-Aug-1998 #text change 21-Aug-1998
C; Accession: PD0441
R; Kawakami, T.; Uchida, T.; Sakai, T.; Kamo, M.; Morimasa, T.; Tsugita, A.
submitted to JIPID, August 1998
A; Description: Proteome analysis of mouse brain.
A; Reference number: PD0441
A; Accession: PD0441
A; Molecule type: protein
A; Residues: 1-11 <KAW>
A; Experimental source: striatum
C; Keywords: mitochondrion
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
```

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0; Mismatches 0; Indels
  Matches
                                                                 0; Gaps
                                                                              0;
            2; Conservative
            3 KK 4
Qу
              5 KK 6
Db
RESULT 47
S65377
cytochrome-c oxidase (EC 1.9.3.1) chain VIa-H, cardiac - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 28-Oct-1996 #sequence revision 13-Mar-1997 #text change 16-Jul-1999
C; Accession: S65377
R; Schaegger, H.; Noack, H.; Halangk, W.; Brandt, U.; von Jagow, G.
Eur. J. Biochem. 230, 235-241, 1995
A; Title: Cytochrome-c oxidase in developing rat heart. Enzymic properties and
amino-terminal sequences suggest identity of the fetal heart and the adult liver
isoform.
A; Reference number: S65372; MUID: 95324529; PMID: 7601105
A; Accession: S65377
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Keywords: cardiac muscle; heart; oxidoreductase
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            1 AS 2
Qу
              11
Db
            1 AS 2
RESULT 48
S78422
ribosomal protein RS20, mitochondrial [validated] - rat (tentative sequence)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 25-Feb-1998 #sequence revision 13-Mar-1998 #text change 21-Jul-2000
C; Accession: S78422
R; Goldschmidt-Reisin, S.; Graack, H.R.
submitted to the Protein Sequence Database, February 1998
A: Reference number: S78411
A; Accession: S78422
A; Molecule type: protein
A; Residues: 1-11 <GOL>
A; Note: the protein is designated as mitochondrial ribosomal protein S20
C; Keywords: mitochondrion; protein biosynthesis; ribosome
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
  Matches
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
Qу
           10 KA 11
              II
```

Db

10 KA 11

```
RESULT 49
PH0939
T-cell receptor beta chain V-D-J region (clone 10) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0939
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A: Accession: PH0939
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A: Experimental source: complete Freund's adjuvant-immunized lymph node
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AS 2
Qу
              2 AS 3
RESULT 50
PH0940
T-cell receptor beta chain V-D-J region (clone 11) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0940
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0940
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: complete Freund's adjuvant-immunized lymph node
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
  Matches
            2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
            1 AS 2
Qу
              11
Db
            2 AS 3
RESULT 51
PH0941
T-cell receptor beta chain V-D-J region (clone 12) - rat (fragment)
```

```
C; Species: Rattus norvegicus (Norway rat)
C; Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0941
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0941
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: complete Freund's adjuvant-immunized lymph node
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
           2; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
           1 AS 2
QУ
              +1
            2 AS 3
Db
RESULT 52
PH0929
T-cell receptor beta chain V-D-J region (clone 15) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C; Accession: PH0929
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A;Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0929
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: concanavalin A-activated lymphoblast
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
                                                                             0;
           2; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
  Matches
            1 AS 2
Qу
              2 AS 3
Db
RESULT 53
PH0891
T-cell receptor beta chain V-D-J region (clone 6-1) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0891
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
```

```
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0891
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein-immunized T-cell
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                                0; Mismatches
                                                  0;
                                                       Indels
  Matches
            2; Conservative
            1 AS 2
Qу
              \Box
            2 AS 3
Db
RESULT 54
PH0938
T-cell receptor beta chain V-D-J region (clone 9) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C; Accession: PH0938
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0938
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: complete Freund's adjuvant-immunized lymph node
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3.1e+04;
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            2; Conservative
            1 AS 2
QУ
              -11
            2 AS 3
Db
RESULT 55
PH0947
T-cell receptor beta chain V-D-J region (clone A2) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0947
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0947
A; Molecule type: mRNA
```

```
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein fragment-reactive T-cell, recovered
from experimentally induced allergic encephalomyelitis
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
            2; Conservative 0; Mismatches
                                                    0; Indels
                                                                               0;
                                                                  0; Gaps
  Matches
            1 AS 2
Qу
              11
            2 AS 3
Db
RESULT 56
PH0903
T-cell receptor beta chain V-D-J region (hybridoma S1C2A6) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0903
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0903
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein-immunized T-cell
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.1e+04;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
            1 AS 2
Qy
              \mathbf{11}
            2 AS 3
Db
RESULT 57
PH0904
T-cell receptor beta chain V-D-J region (hybridoma S22C2) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0904
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0904
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein-immunized T-cell
C; Keywords: T-cell receptor
```

```
Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AS 2
Qу
              Db
            2 AS 3
RESULT 58
PH0924
T-cell receptor beta chain V-D-J region (isolate 10) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0924
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0924
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: concanavalin A-activated lymphoblast
C; Keywords: T-cell receptor
  Query Match
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  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
                                0; Mismatches
            2; Conservative
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            1 AS 2
Qу
              \mathbf{H}
Db
            2 AS 3
RESULT 59
PH0919
T-cell receptor beta chain V-D-J region (isolate 5) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0919
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0919
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: concanavalin A-activated lymphoblast
A; Note: the authors translated the codon CAG for residue 11 as Glu
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
                                 0; Mismatches
             2; Conservative
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
```

```
1 AS 2
Qу
             2 AS 3
Db
RESULT 60
PH0914
T-cell receptor beta chain V-D-J region (isolate 7) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0914
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0914
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein-immunized lymph node
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
             2; Conservative
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AS 2
Qу
              11
Db
            2 As 3
RESULT 61
PH0922
T-cell receptor beta chain V-D-J region (isolate 8) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0922
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0922
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: concanavalin A-activated lymphoblast
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
 Matches
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                            . 0;
Qу
            1 AS 2
              11
Db
            2 AS 3
```

```
RESULT 62
PH0906
T-cell receptor beta chain V-D-J region (isolates 2, 8, 9) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0906
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0906
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein-immunized lymph node
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AS 2
Qу
              -11
Db
            2 AS 3
RESULT 63
A61575
Trimeresurus serine proteinase (EC 3.4.21.-) - Sakishima habu (fragment)
N; Alternate names: hemorrhagic toxin
C; Species: Trimeresurus elegans (Sakishima habu)
C;Date: 20-Oct-1994 #sequence revision 06-Jan-1995 #text change 06-Jan-1995
C; Accession: A61575
R; Nikai, T.; Komori, Y.; Imai, K.; Sugihara, H.
Int. J. Biochem. 23, 73-78, 1991
A;Title: Isolation and characterization of hemorrhagic toxin from the venom of
Trimeresurus elegans.
A; Reference number: A61575; MUID: 91216327; PMID: 2022298
A; Accession: A61575
A; Molecule type: protein
A; Residues: 1-11 <NIK>
C; Keywords: hydrolase; serine proteinase; venom
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
                                0; Mismatches
  Matches
            2; Conservative
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            8 NI 9
              11
Db
            8 NI 9
RESULT 64
S60294
tubulin 2 beta-3 chain - fruit fly (Drosophila melanogaster) (fragment)
C; Species: Drosophila melanogaster
C; Date: 19-Jul-1996 #sequence revision 26-Jul-1996 #text change 21-Jun-2002
```

```
C:Accession: S60294
R; Chapel, S.; Sobrier, M.L.; Montpied, P.; Micard, D.; Bruhat, A.; Couderc,
J.L.; Dastugue, B.
Insect Mol. Biol. 2, 39-48, 1993
A; Title: In Drosophila Kc cells 20-OHE induction of the 60C beta-3 tubulin gene
expression is a primary transcriptional event.
A; Reference number: S60292; MUID: 97242543; PMID: 9087542
A; Accession: S60294
A; Molecule type: mRNA
A; Residues: 1-11 <CHA>
A; Cross-references: EMBL:X60393
C; Genetics:
A; Gene: FlyBase: beta-Tub60D
A; Cross-references: FlyBase: FBgn0003888
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.1e+04;
  Matches
            2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AS 2
Qу
            2 AS 3
Db
RESULT 65
PC2390
trichorozin I - fungus (Trichoderma harzianum)
C; Species: Trichoderma harzianum
C;Date: 17-May-1995 #sequence revision 21-Jul-1995 #text change 20-Oct-2000
C; Accession: PC2390
R; Iida, A.; Sanekata, M.; Wada, S.; Fujita, T.; Tanaka, H.; Enoki, A.; Fuse, G.;
Kanai, M.; Asami, K.
Chem. Pharm. Bull. 43, 392-397, 1995
A; Title: Fungal metabolites. XVIII. New membrane-modifying peptides,
trichorozins I-IV, from the fungus Trichoderma harzianum.
A; Reference number: PC2390; MUID: 95292356; PMID: 7539721
A; Accession: PC2390
A; Status: unencoded polypeptide
A; Molecule type: protein
A; Residues: 1-11 <IID>
C; Comment: This peptide exhibits voltage-dependent ion channel-like activity in
lipid bilayers.
C; Keywords: antibiotic; unencoded polypeptide
F;1/Modified site: acetylated amino end #status experimental
F;1,5,9/Modified site: 2-amino-2-methylpropanoic acid #status experimental
F;11/Modified site: valinol #status experimental
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                          100.0%; Pred. No. 3.1e+04;
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                                                       Indels
                                                                  0; Gaps
                                                                              0;
Qу
            8 NI 9
Dh
            2 NI 3
```

```
trichorozin III - fungus (Trichoderma harzianum)
C; Species: Trichoderma harzianum
C;Date: 17-May-1995 #sequence revision 21-Jul-1995 #text change 20-Oct-2000
C; Accession: PC2392
R; Iida, A.; Sanekata, M.; Wada, S.; Fujita, T.; Tanaka, H.; Enoki, A.; Fuse, G.;
Kanai, M.; Asami, K.
Chem. Pharm. Bull. 43, 392-397, 1995
A: Title: Fungal metabolites. XVIII. New membrane-modifying peptides,
trichorozins I-IV, from the fungus Trichoderma harzianum.
A; Reference number: PC2390; MUID: 95292356; PMID: 7539721
A; Accession: PC2392
A; Status: unencoded polypeptide
A; Molecule type: protein
A; Residues: 1-11 <IID>
C; Comment: This peptide exhibits voltage-dependent ion channel-like activity in
lipid bilayers.
C; Keywords: antibiotic; unencoded polypeptide
F;1/Modified site: acetylated amino end #status experimental
F;1,5,9/Modified site: 2-amino-2-methylpropanoic acid #status experimental
F;11/Modified site: leucinol #status experimental
                          18.2%; Score 2; DB 4; Length 11;
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  Best Local Similarity
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                              0; Mismatches
                                                  0; Indels
                                                                              0;
  Matches
            2; Conservative
            8 NI 9
Qу
              \pm 1
            2 NI 3
Db
RESULT 67
S52252
hypothetical protein pco 5'-region - Escherichia coli plasmid pRJ1004 (fragment)
C; Species: Escherichia coli
C; Date: 22-Oct-1999 #sequence revision 22-Oct-1999 #text change 22-Oct-1999
C; Accession: S70166; S52252
R; Brown, N.L.; Barrett, S.R.; Camakaris, J.; Lee, B.T.O.; Rouch, D.A.
Mol. Microbiol. 17, 1153-1166, 1995
A; Title: Molecular genetics and transport analysis of the copper-resistance
determinant (pco) from Escherichia coli plasmid pRJ1004.
A; Reference number: S70159; MUID: 96130847; PMID: 8594334
A; Accession: S70166
A; Status: nucleic acid sequence not shown; translation not shown
A; Molecule type: DNA
A; Residues: 1-11 <BRO>
A; Cross-references: EMBL: X83541; NID: q619126; PIDN: CAA58524.1; PID: q619127
A; Note: the nucleotide sequence was submitted to the EMBL Data Library, January
C; Comment: This is the hypothetical translation of a sequence that was not
reported as a coding sequence in the complete genome.
C; Genetics:
A; Genome: plasmid pRJ1004
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PC2392

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            2 NI 3
Db
RESULT 68
I54081
retinoic acid receptor alpha, exon 3 (mistranslated) - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 04-Jun-1999 #sequence revision 04-Jun-1999 #text change 28-Jun-1999
C; Accession: I54081
R; Dong, S.; Geng, J.P.; Tong, J.H.; Wu, Y.; Cai, J.R.; Sun, G.L.; Chen, S.R.;
Wang, Z.Y.; Larsen, C.J.; Berger, R.
Genes Chromosomes Cancer 6, 133-139, 1993
A; Title: Breakpoint clusters of the PML gene in acute promyelocytic leukemia:
primary structure of the reciprocal products of the PML-RARA gene in a patient
with t(15;17).
A; Reference number: I54081; MUID: 93222087; PMID: 7682097
A; Accession: I54081
A; Status: translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < DON>
A;Cross-references: GB:S57794; NID:q299073; PIDN:AAD13888.1; PID:g4261588
A; Note: the translation is from an incorrect reading frame
C; Genetics:
A; Gene: GDB: RARA
A; Cross-references: GDB:120337; OMIM:180240
A; Map position: 17q12-17q12
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                          100.0%; Pred. No. 3.1e+04;
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                                0; Mismatches
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                                                       Indels
                                                                   0; Gaps
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            6 KR 7
Qу
              11
Db
           10 KR 11
RESULT 69
XAVIBH
bradykinin-potentiating peptide - halys viper
N; Alternate names: BPP
C; Species: Agkistrodon halys (halys viper)
C;Date: 30-Sep-1988 #sequence_revision 30-Sep-1988 #text change 05-Aug-1994
C; Accession: JC0002
R; Chi, C.W.; Wang, S.Z.; Xu, L.G.; Wang, M.Y.; Lo, S.S.; Huang, W.D.
Peptides 6, 339-342, 1985
A; Title: Structure-function studies on the bradykinin potentiating peptide from
Chinese snake venom (Agkistrodon halys Pallas).
A; Reference number: JC0002; MUID: 86177022; PMID: 3008123
A; Accession: JC0002
A; Molecule type: protein
A; Residues: 1-11 <CHI>
C; Comment: Because this peptide both inhibits the activity of the angiotensin-
converting enzyme and enhances the action of bradykinin, it is an
antihypertensive agent.
```

8 NI 9

Qу

```
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; antihypertensive;
bradykinin; pyroglutamic acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
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                              0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
            1; Conservative
                                                   0;
                                                       Indels
            7 R 7
Qу
              -
            3 R 3
Db
RESULT 70
ECLQ2M
tachykinin II - migratory locust
C; Species: Locusta migratoria (migratory locust)
C; Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 08-Dec-1995
C; Accession: S08266
R; Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; de Loof, A.
FEBS Lett. 261, 397-401, 1990
A; Title: Locustatachykinin I and II, two novel insect neuropeptides with
homology to peptides of the vertebrate tachykinin family.
A; Reference number: S08265; MUID: 90184489; PMID: 2311766
A; Accession: S08266
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Superfamily: tachykinin
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Arg) #status experimental
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  Best Local Similarity
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  Matches
             1; Conservative
                                0; Mismatches
                                                   0; Indels
            1 A 1
Qу
            1 A 1
RESULT 71
GMROT.
leucosulfakinin - Madeira cockroach
N; Alternate names: LSK
C; Species: Leucophaea maderae (Madeira cockroach)
C;Date: 17-Mar-1987 #sequence revision 17-Mar-1987 #text change 13-Sep-1996
C; Accession: A01622
R; Nachman, R.J.; Holman, G.M.; Haddon, W.F.; Ling, N.
Science 234, 71-73, 1986
A; Title: Leucosulfakinin, a sulfated insect neuropeptide with homology to
gastrin and cholecystokinin.
A; Reference number: A01622; MUID: 86315858; PMID: 3749893
A; Accession: A01622
A; Molecule type: protein
A; Residues: 1-11 <NAC>
C; Superfamily: gastrin
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C; Keywords: amidated carboxyl end; hormone; sulfoprotein
F;6/Binding site: sulfate (Tyr) (covalent) #status experimental
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
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                                                      Indels
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                                                                              0;
            7 R 7
QУ
           10 R 10
Db
RESULT 72
LFTWWE
probable trpEG leader peptide - Thermus aquaticus
C; Species: Thermus aquaticus
C;Date: 30-Jun-1991 #sequence revision 30-Jun-1991 #text change 16-Jul-1999
C; Accession: S03315
R; Sato, S.; Nakada, Y.; Kanaya, S.; Tanaka, T.
Biochim. Biophys. Acta 950, 303-312, 1988
A; Title: Molecular cloning and nucleotide sequence of Thermus thermophilus HB8
trpE and trpG.
A; Reference number: S03315; MUID: 89000781; PMID: 2844259
A; Accession: S03315
A; Molecule type: DNA
A; Residues: 1-11 <SAT>
A; Cross-references: EMBL: X07744; NID: g48261; PIDN: CAA30565.1; PID: g48262
A; Note: the source is designated as Thermus thermophilus HB8
C; Genetics:
A; Gene: trpL
C; Superfamily: probable trpEG leader peptide
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              -
Db
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RESULT 73
S66196
alcohol dehydrogenase (EC 1.1.1.1) class III high affinity form - cod (Gadus
sp.) (fragment)
C; Species: Gadus sp. (cod)
C; Date: 14-Feb-1997 #sequence revision 13-Mar-1997 #text change 12-Jun-1998
C; Accession: S66196
R; Hjelmqvist, L.; Hackett, M.; Shafqat, J.; Danielsson, O.; Iida, J.;
Hendrickson, R.C.; Michel, H.; Shabanowitz, J.; Hunt, D.F.; Joernvall, H.
FEBS Lett. 367, 237-240, 1995
A; Title: Multiplicity of N-terminal structures of medium-chain alcohol
dehydrogenases. Mass-spectrometric analysis of plant, lower vertebrate and
higher vertebrate class I, II, and III forms of the enzyme.
A; Reference number: S66191; MUID: 95331382; PMID: 7607314
A; Accession: S66196
```

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A; Molecule type: protein
A; Residues: 1-11 <HJE>
C; Superfamily: alcohol dehydrogenase; long-chain alcohol dehydrogenase homology
C; Keywords: alcohol metabolism; NAD; oxidoreductase
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            9 I 9
Qy
Db
            2 I 2
RESULT 74
G42762
proteasome endopeptidase complex (EC 3.4.25.1) subunit 13 - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 04-Mar-1993 #sequence revision 18-Nov-1994 #text change 17-Feb-2003
C; Accession: G42762
R; Dick, L.R.; Moomaw, C.R.; Pramanik, B.C.; DeMartino, G.N.; Slaughter, C.A.
Biochemistry 31, 7347-7355, 1992
A; Title: Identification and localization of a cysteinyl residue critical for the
trypsin-like catalytic activity of the proteasome.
A; Reference number: A42762; MUID: 92378961; PMID: 1510924
A; Accession: G42762
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <DIC>
A; Note: sequence extracted from NCBI backbone (NCBIP:112176)
C; Superfamily: multicatalytic endopeptidase complex chain C9
C; Keywords: hydrolase
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              1
Db
            8 K 8
RESULT 75
A33917
dihydroorotase (EC 3.5.2.3) - Chinese hamster (fragment)
C; Species: Cricetulus griseus (Chinese hamster)
C; Date: 09-Mar-1990 #sequence revision 09-Mar-1990 #text change 07-Nov-1997
C; Accession: A33917
R; Simmer, J.P.; Kelly, R.E.; Scully, J.L.; Grayson, D.R.; Rinker Jr., A.G.;
Bergh, S.T.; Evans, D.R.
Proc. Natl. Acad. Sci. U.S.A. 86, 4382-4386, 1989
A; Title: Mammalian aspartate transcarbamylase (ATCase): sequence of the ATCase
domain and interdomain linker in the CAD multifunctional polypeptide and
properties of the isolated domain.
A; Reference number: A33917; MUID: 89282776; PMID: 2543974
A; Accession: A33917
A; Status: preliminary
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A; Molecule type: mRNA A; Residues: 1-11 <SIM>

A; Cross-references: GB:M23652

C; Superfamily: rudimentary enzyme; aspartate/ornithine carbamoyltransferase homology; Bacillus dihydroorotase homology; biotin carboxylase homology; carbamoyl-phosphate synthase (ammonia) homology; carbamoyl-phosphate synthase (glutamine-hydrolyzing) large chain homology; carbamoyl-phosphate synthase

(glutamine-hydrolyzing) small chain homology; trpG homology

C; Keywords: hydrolase

Query Match 9.1%; Score 1; DB 2; Length 11; Best Local Similarity 100.0%; Pred. No. 2.1e+05; 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qу 3 K 3 Db 5 K 5

Search completed: April 8, 2004, 15:49:24 Job time : 9.61538 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:47:33; Search time 30.3077 Seconds

(without alignments)

95.432 Million cell updates/sec

Title: US-09-787-443A-1

Perfect score: 11

Sequence: 1 ASKKPKRNIKA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1073127 seqs, 262937947 residues

Word size:

Total number of hits satisfying chosen parameters: 9223

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: Published Applications AA:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

ક્ર

Result Query

No. Score Match Length DB ID

Description

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                      11 10 US-09-876-904A-597
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                      11 8
                             US-08-344-824-44
                                                         Sequence 44, Appl
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                      11 9
                             US-09-129-112-17
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 5
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                             US-09-839-666-12
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60	3	27.3	11	14		Sequence 35, Appl
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62	3	27.3	11	14		Sequence 5, Appli
63	3	27.3	11	14		Sequence 12, Appl
64	3	27.3	11	14	US-10-206-699-238	Sequence 238, App
65	3	27.3	11	14		Sequence 202, App
66	3	27.3	11	14		Sequence 384, App
67	3	27.3	11	14		Sequence 39, Appl
68	3	27.3	11	14	US-10-160-290-4	Sequence 4, Appli
69	3	27.3	11	14	US-10-095-818A-19	Sequence 19, Appl
70	3	27.3	11	14		Sequence 12, Appl
71	3	27.3	11	14	US-10-079-167-8	Sequence 8, Appli
72	3	27.3	11	14	US-10-224-999A-1343	Sequence 1343, Ap
73	3	27.3	11	14	US-10-224-999A-1344	Sequence 1344, Ap
74	3	27.3	11	14	US-10-224-999A-1345	Sequence 1345, Ap
75	3	27.3	11	14	US-10-224-999A-1346	Sequence 1346, Ap
76	3	27.3	11	14	US-10-224-999A-1347	Sequence 1347, Ap
77	3	27.3	11	14	US-10-239-313A-263	Sequence 263, App
78	3	27.3	11	14	US-10-020-269-7	Sequence 7, Appli
79	3	27.3	11	14	US-10-001-245-216	Sequence 216, App
80	3	27.3	11	14	US-10-387-645-14	Sequence 14, Appl
81	3	27.3	11	14	US-10-161-791-285	Sequence 285, App
82	3	27.3	11	14	US-10-189-437-545	Sequence 545, App
83	3	27.3	11	15	US-10-137-867-486	Sequence 486, App
84	3	27.3	11	15	US-10-016-569A-11	Sequence 11, Appl
85	3	27.3	11	15	US-10-308-644-11	Sequence 11, Appl
86	3	27.3	11	15	US-10-014-099F-30	Sequence 30, Appl
87	3	27.3	11	15	US-10-394-980-98	Sequence 98, Appl
88	3	27.3	11	15	US-10-360-101-187	Sequence 187, App
89	3	27.3	11	15	US-10-408-133-17	Sequence 17, Appl
90	3	27.3	11	15	US-10-411-336A-131	Sequence 131, App
91	3	27.3	11	15	US-10-411-336A-248	Sequence 248, App
92	3	27.3	11	16	US-10-365-761B-2	Sequence 2, Appli
93	2	18.2	11	8	US-08-450-842-45	Sequence 45, Appl
94	2	18.2	11	8	US-08-996-470-2	Sequence 2, Appli
95	2	18.2	11	8	US-08-424-550B-192	Sequence 192, App
96	2	18.2	11	8	US-08-424-550B-550	Sequence 550, App
97	2	18.2	11	8	US-08-809-423A-5	Sequence 5, Appli
98	2	18.2	11	8	US-08-779-457-43	Sequence 43, Appl
99	2	18.2	11	8	US-08-996-140-10	Sequence 10, Appl
100	2	18.2	11	8	US-08-996-140-16	Sequence 16, Appl

ALIGNMENTS

RESULT 1

US-10-197-954-28

- ; Sequence 28, Application US/10197954
- ; Publication No. US20030119021A1
- ; GENERAL INFORMATION:
- ; APPLICANT: K"ster, Hubert
- ; APPLICANT: Siddiqi, Suhaib ; APPLICANT: Little, Daniel

```
TITLE OF INVENTION: Capture Compounds, Collections Thereof
  TITLE OF INVENTION: And Methods For Analyzing The Proteome And Complex
; TITLE OF INVENTION: Compositions
; FILE REFERENCE: 24743-2305
  CURRENT APPLICATION NUMBER: US/10/197,954
  CURRENT FILING DATE: 2002-07-16
; PRIOR APPLICATION NUMBER: 60/306,019
; PRIOR FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 60/314,123
; PRIOR FILING DATE: 2001-08-21
; PRIOR APPLICATION NUMBER: 60/363,433
  PRIOR FILING DATE: 2002-03-11
; NUMBER OF SEQ ID NOS: 149
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 28
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo Sapien
US-10-197-954-28
 Query Match 100.0%; Score 11; DB 14; Length 11; Best Local Similarity 100.0%; Pred. No. 3.9e-05;
 Matches 11; Conservative 0; Mismatches 0; Indels 0; Gaps
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Qу
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RESULT 2
US-09-876-904A-597
; Sequence 597, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
 PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 597
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Parechinus angulosus
   OTHER INFORMATION: Sea urchin Parechinus angulosus sperm H1 (248 aa).
US-09-876-904A-597
 Query Match
                        36.4%; Score 4; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 7.6e+02;
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QУ
             5 KKPK 8
Db
RESULT 3
US-08-344-824-44
; Sequence 44, Application US/08344824
; Publication No. US20030152580A1
  GENERAL INFORMATION:
    APPLICANT: SETTE, Alessandro
    APPLICANT: SIDNEY, John
    TITLE OF INVENTION: HLA BINDING PEPTIDES AND THEIR USES
    NUMBER OF SEQUENCES: 399
    CORRESPONDENCE ADDRESS:
                 Townsend and Townsend Khourie and Crew
       STREET: One Market Plaza, Steuart Street Tower, 20th
      STREET: Floor
      CITY: San Francisco
      STATE: California
      COUNTRY: USA
;
       ZIP: 94105
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/344,824
       FILING DATE: 23-NOV-1994
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/278,634
       FILING DATE: 21-JUL-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Bastian, Kevin L.
      REGISTRATION NUMBER: 34,774
       REFERENCE/DOCKET NUMBER: 14137-80-1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 543-9600
      TELEFAX: (415) 543-5043
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: DNA (genomic)
US-08-344-824-44
                         27.3%; Score 3; DB 8; Length 11;
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  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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Qу
           1 ASK 3
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Db 2 ASK 4
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RESULT 4
US-09-129-112-17
; Sequence 17, Application US/09129112
; Patent No. US20020019995A1
; GENERAL INFORMATION:
  APPLICANT: Etzler, Marilynn E.
   APPLICANT: Murphy, Judith B.
   APPLICANT: The Regents of the University of California
   TITLE OF INVENTION: A No. US20020019995A1 Factor Binding Protein From Legume
Roots
  FILE REFERENCE: 023070-079810US
   CURRENT APPLICATION NUMBER: US/09/129,112
   CURRENT FILING DATE: 1998-08-04
  PRIOR APPLICATION NUMBER: US 08/907,226
   PRIOR FILING DATE: 1997-08-06
   NUMBER OF SEQ ID NOS: 19
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 17
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Lotus japonicus
US-09-129-112-17
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Qу
              | | | |
Db
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RESULT 5
US-09-839-666-12
; Sequence 12, Application US/09839666
; Patent No. US20020025513A1
    GENERAL INFORMATION:
         APPLICANT: SALLBERG, MATTI
         TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
                             EXCHANGER
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: DARBY & DARBY PC
              STREET: 805 Third Avenue
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10022
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
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CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/839,666
              FILING DATE: 19-Apr-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/737,085
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Green, Reza
              REGISTRATION NUMBER: 38,475
              REFERENCE/DOCKET NUMBER: 3846/0C569
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 212-527-7659
              TELEFAX: 212-753-6237
              TELEX: 236687
    INFORMATION FOR SEQ ID NO: 12:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 12:
US-09-839-666-12
  Query Match
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  Best Local Similarity
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  Matches
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            6 KRN 8
Qу
              \pm 111
Db
            5 KRN 7
RESULT 6
US-09-839-884-53
; Sequence 53, Application US/09839884
; Patent No. US20020076739A1
; GENERAL INFORMATION:
  APPLICANT: Aebersold, Rudolf H.
  APPLICANT: Gelb, Michael H
  APPLICANT: Gygi, Steven
  APPLICANT: Scott, C R
  APPLICANT: Turecek, Frantisek
  APPLICANT: Gerber, Scott A
  APPLICANT: Rist, Beate
  TITLE OF INVENTION: Rapid Quantitative Analysis of Proteins or Protein
;
  TITLE OF INVENTION: Function in Complex Mixture
;
  FILE REFERENCE: 64-98A
  CURRENT APPLICATION NUMBER: US/09/839,884
  CURRENT FILING DATE: 2001-04-20
  PRIOR APPLICATION NUMBER: 09/383,062
  PRIOR FILING DATE: 1999-08-25
  PRIOR APPLICATION NUMBER: 60/097,788
  PRIOR FILING DATE: 1998-08-25
; NUMBER OF SEQ ID NOS: 64
  SOFTWARE: PatentIn Ver. 2.0
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; SEQ ID NO 53
    LENGTH: 11
    TYPE: PRT
    ORGANISM: yeast
    FEATURE:
    NAME/KEY: VARIANT
    LOCATION: (2)
    OTHER INFORMATION: C at position 2 is ICAT-labeled cysteinyl residue.
US-09-839-884-53
  Query Match
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  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
             3; Conservative 0; Mismatches 0; Indels
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Qу
             -111
Db
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RESULT 7
US-09-809-739-2
; Sequence 2, Application US/09809739
; Patent No. US20020106369A1
; GENERAL INFORMATION:
  APPLICANT: Horvath, Christopher J.
  APPLICANT: Rao, Patricia E.
  TITLE OF INVENTION: Method of Inhibiting Stenosis and
  TITLE OF INVENTION: Restenosis
   FILE REFERENCE: 1855.1069-003
   CURRENT APPLICATION NUMBER: US/09/809,739
  CURRENT FILING DATE: 2001-03-15
   PRIOR APPLICATION NUMBER: US 09/528,267
  PRIOR FILING DATE: 2000-03-17
  NUMBER OF SEQ ID NOS: 23
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown
   FEATURE:
   NAME/KEY: SITE
   LOCATION: (1)...(11)
    OTHER INFORMATION: CDR1 of YFC51.1 light chain
   OTHER INFORMATION: Rat .
US-09-809-739-2
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                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
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             111
            2 ASK 4
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RESULT 8 US-09-941-611-3

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; Sequence 3, Application US/09941611
  Patent No. US20020106640A1
    GENERAL INFORMATION:
         APPLICANT: DELEYS, ROBERT J
                    POLLET, DIRK
                    MAERTENS, GEERT
                    VAN HEUVERSWUN, HUGO
         TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
                             ANTIBODIES TO HEPATITIS C VIRUS
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: NIXON & VANDERHYE P.C.
              STREET: 1100 NORTH GLEBE ROAD
              CITY: ARLINGTON
              STATE: VA
              COUNTRY: USA
              ZIP: 22201
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/941,611
              FILING DATE: 30-Aug-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/391,671
              FILING DATE: 1995-02-21
              APPLICATION NUMBER: WO PCT/EP91/02409
              FILING DATE: 13-DEC-1991
              APPLICATION NUMBER: EP 90124241.2
              FILING DATE: 14-DEC-1990
         ATTORNEY/AGENT INFORMATION:
              NAME: SADOFF, B.J.
              REGISTRATION NUMBER: 36,663
              REFERENCE/DOCKET NUMBER: 1487-5
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 7038164000
              TELEFAX: 7038164100
    INFORMATION FOR SEQ ID NO: 3:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-941-611-3
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Qу
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              \mathbf{H}
Db
            5 KRN 7
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RESULT 9
US-09-982-264-4
; Sequence 4, Application US/09982264
; Patent No. US20020106706A1
; GENERAL INFORMATION:
  APPLICANT: Qiu, Bo
  APPLICANT: Stein, Stanley
  APPLICANT: Brunner, Michael
              Katz, Michael
  APPLICANT:
   APPLICANT:
              Zhang, Guobao
  APPLICANT: Sigal, Leonard
  TITLE OF INVENTION: Immunological Test Kit with Borellia burgdorferi Epitope
   FILE REFERENCE: 271/288
  CURRENT APPLICATION NUMBER: US/09/982,264
  CURRENT FILING DATE: 2001-10-17
  NUMBER OF SEQ ID NOS: 7
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Borellia burgdorferi
US-09-982-264-4
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                          100.0%; Pred. No. 8.3e+03;
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             3; Conservative
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Qу
             +1+
Db
            8 KKP 10
RESULT 10
US-09-813-333-10
; Sequence 10, Application US/09813333
; Patent No. US20020119160A1
; GENERAL INFORMATION:
  APPLICANT: DeGroot, Anne S
  TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
  FILE REFERENCE: 17999-004 US
  CURRENT APPLICATION NUMBER: US/09/813,333
  CURRENT FILING DATE: 2001-03-20
  PRIOR APPLICATION NUMBER: 60/190,834
  PRIOR FILING DATE: 2000-03-20
  NUMBER OF SEQ ID NOS: 81
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Mycobacterium tuberculosis
US-09-813-333-10
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9 IKA 11
Qу
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Db
RESULT 11
US-09-966-871-5
; Sequence 5, Application US/09966871
; Patent No. US20020127539A1
; GENERAL INFORMATION:
   APPLICANT: Kopin, Alan S.
   TITLE OF INVENTION: Assays for Identifying Receptors Having
   TITLE OF INVENTION: Alterations in Signaling
   FILE REFERENCE: 00398/512002
   CURRENT APPLICATION NUMBER: US/09/966,871
   CURRENT FILING DATE: 2001-09-28
   PRIOR APPLICATION NUMBER: US 60/236,302
   PRIOR FILING DATE: 2000-09-28
   PRIOR APPLICATION NUMBER: US 60/288,644
   PRIOR FILING DATE: 2001-05-03
  NUMBER OF SEQ ID NOS: 87
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 5
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-966-871-5
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                          100.0%; Pred. No. 8.3e+03;
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            1 ASK 3
Qy
              111
            5 ASK 7
Db
RESULT 12
US-09-956-522-2
; Sequence 2, Application US/09956522
; Patent No. US20020128203A1
; GENERAL INFORMATION:
  APPLICANT: Schild, Laurent
  APPLICANT: Kellenberger, Stephan
  TITLE OF INVENTION: Methods of Identifying Inhibitory Compounds and Uses
  TITLE OF INVENTION: Thereof
  FILE REFERENCE: 20349-508
  CURRENT APPLICATION NUMBER: US/09/956,522
  CURRENT FILING DATE: 2001-09-19
  PRIOR APPLICATION NUMBER: 60/234,021
  PRIOR FILING DATE: 2000-09-20
  NUMBER OF SEQ ID NOS: 6
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
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US-09-956-522-2
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QУ
             111
           3 PKR 5
Db
RESULT 13
US-09-872-832-37
; Sequence 37, Application US/09872832
; Patent No. US20020131960A1
; GENERAL INFORMATION:
; APPLICANT: Memorial Sloan-Kettering Cancer Center
  TITLE OF INVENTION: ARTIFICIAL ANTIGEN PRESENTING CELLS AND METHODS OF USE
THEREOF
; FILE REFERENCE: 830002-2003.1
  CURRENT APPLICATION NUMBER: US/09/872,832
; CURRENT FILING DATE: 2001-06-01
; PRIOR APPLICATION NUMBER: 60/209,157
; PRIOR FILING DATE: 2000-02-06
; NUMBER OF SEQ ID NOS: 49
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 37
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-872-832-37
  Ouery Match
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  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
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Qy
             Db
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RESULT 14
US-09-791-378-202
; Sequence 202, Application US/09791378
; Patent No. US20020142303A1
; GENERAL INFORMATION:
; APPLICANT: Parekh, Rajesh
  TITLE OF INVENTION: PROTEINS, GENES AND THEIR USE FOR DIAGNOSIS AND TREATMENT
OF
  TITLE OF INVENTION: SCHIZOPHRENIA
  FILE REFERENCE: 9195-061-999
  CURRENT APPLICATION NUMBER: US/09/791,378
; CURRENT FILING DATE: 2001-02-23
; PRIOR APPLICATION NUMBER: 09/750,395
; PRIOR FILING DATE: 2000-12-28
; NUMBER OF SEQ ID NOS: 677
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ORGANISM: Homo sapiens

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    ORGANISM: Homo sapiens
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                         100.0%; Pred. No. 8.3e+03;
  Matches
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                                                               0; Gaps
Qу
           8 NIK 10
             Db
           9 NIK 11
RESULT 15
US-09-953-587-31
; Sequence 31, Application US/09953587
; Patent No. US20020142939A1
; GENERAL INFORMATION:
; APPLICANT: CHADA, Kiran K.
; APPLICANT: ASHAR, Hena
; APPLICANT: TKACHENKO, Alex
; APPLICANT: ZHOU, Xianjin
  TITLE OF INVENTION: HMGI PROTEINS IN CANCER AND OBESITY
  FILE REFERENCE: 267/110
  CURRENT APPLICATION NUMBER: US/09/953,587
; CURRENT FILING DATE: 2001-09-12
; PRIOR APPLICATION NUMBER: US 08/852,666
; PRIOR FILING DATE: 1997-05-07
; PRIOR APPLICATION NUMBER: US 08/679,529
  PRIOR FILING DATE: 1996-07-12
; PRIOR APPLICATION NUMBER: PCT/US/97/21299
; PRIOR FILING DATE: 1997-11-18
  NUMBER OF SEQ ID NOS: 33
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 31
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   TYPE: PRT
   ORGANISM: Homo sapiens
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Qу
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US-09-839-743-16
; Sequence 16, Application US/09839743
; Patent No. US20020146824A1
; GENERAL INFORMATION:
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SOFTWARE: PatentIn version 3.0

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APPLICANT: The Salk Institute for Biological Sciences
   APPLICANT:
              Lamb, Christopher
   APPLICANT: Doerner, Peter
              Laible, Goetz
   APPLICANT:
   TITLE OF INVENTION: No. US20020146824A1el Transcription Enhancer Element and
   TITLE OF INVENTION: Transcription Factor and Methods of Use Thereof
   FILE REFERENCE: SALKINS.008DV3
   CURRENT APPLICATION NUMBER: US/09/839,743
   CURRENT FILING DATE: 2001-04-19
   PRIOR APPLICATION NUMBER: US 09/401,336
   PRIOR FILING DATE: 1999-09-21
   PRIOR APPLICATION NUMBER: US 09/189,344
   PRIOR FILING DATE: 1998-11-10
  PRIOR APPLICATION NUMBER: US 08/669,721
   PRIOR FILING DATE: 1996-06-27
  NUMBER OF SEQ ID NOS: 28
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 16
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Nicotiana tabacum
US-09-839-743-16
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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Qу
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Db
            2 PKR 4
RESULT 17
US-09-839-743-17
; Sequence 17, Application US/09839743
; Patent No. US20020146824A1
; GENERAL INFORMATION:
  APPLICANT: The Salk Institute for Biological Sciences
  APPLICANT: Lamb, Christopher
;
  APPLICANT: Doerner, Peter
  APPLICANT: Laible, Goetz
  TITLE OF INVENTION: No. US20020146824A1el Transcription Enhancer Element and
  TITLE OF INVENTION: Transcription Factor and Methods of Use Thereof
  FILE REFERENCE: SALKINS.008DV3
  CURRENT APPLICATION NUMBER: US/09/839,743
;
  CURRENT FILING DATE: 2001-04-19
  PRIOR APPLICATION NUMBER: US 09/401,336
;
  PRIOR FILING DATE: 1999-09-21
  PRIOR APPLICATION NUMBER: US 09/189,344
  PRIOR FILING DATE: 1998-11-10
  PRIOR APPLICATION NUMBER: US 08/669,721
  PRIOR FILING DATE: 1996-06-27
  NUMBER OF SEQ ID NOS: 28
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 17
   LENGTH: 11
   TYPE: PRT
```

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ORGANISM: Nicotiana tabacum
US-09-839-743-17
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
             3; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            5 PKR 7
              111
Db
            2 PKR 4
RESULT 18
US-09-839-743-18
; Sequence 18, Application US/09839743
; Patent No. US20020146824A1
; GENERAL INFORMATION:
  APPLICANT: The Salk Institute for Biological Sciences
   APPLICANT: Lamb, Christopher
   APPLICANT:
              Doerner, Peter
   APPLICANT: Laible, Goetz
   TITLE OF INVENTION: No. US20020146824Alel Transcription Enhancer Element and
  TITLE OF INVENTION: Transcription Factor and Methods of Use Thereof
   FILE REFERENCE: SALKINS.008DV3
   CURRENT APPLICATION NUMBER: US/09/839,743
   CURRENT FILING DATE: 2001-04-19
   PRIOR APPLICATION NUMBER: US 09/401,336
   PRIOR FILING DATE: 1999-09-21
   PRIOR APPLICATION NUMBER: US 09/189,344
   PRIOR FILING DATE: 1998-11-10
   PRIOR APPLICATION NUMBER: US 08/669,721
   PRIOR FILING DATE: 1996-06-27
  NUMBER OF SEQ ID NOS: 28
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 18
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Nicotiana tabacum
US-09-839-743-18
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
            3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                             0;
            5 PKR 7
Qу
              \Pi\Pi
           2 PKR 4
RESULT 19
US-09-839-743-24
; Sequence 24, Application US/09839743
; Patent No. US20020146824A1
; GENERAL INFORMATION:
; APPLICANT: The Salk Institute for Biological Sciences
; APPLICANT: Lamb, Christopher
; APPLICANT: Doerner, Peter
```

```
APPLICANT: Laible, Goetz
  TITLE OF INVENTION: No. US20020146824Alel Transcription Enhancer Element and
  TITLE OF INVENTION: Transcription Factor and Methods of Use Thereof
; FILE REFERENCE: SALKINS.008DV3
  CURRENT APPLICATION NUMBER: US/09/839,743
; CURRENT FILING DATE: 2001-04-19
; PRIOR APPLICATION NUMBER: US 09/401,336
; PRIOR FILING DATE: 1999-09-21
; PRIOR APPLICATION NUMBER: US 09/189,344
; PRIOR FILING DATE: 1998-11-10
; PRIOR APPLICATION NUMBER: US 08/669,721
; PRIOR FILING DATE: 1996-06-27
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 24
  LENGTH: 11
   TYPE: PRT
   ORGANISM: Nicotiana tabacum
US-09-839-743-24
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
           5 PKR 7
             111
           3 PKR 5
Dh
RESULT 20
US-09-071-838-39
; Sequence 39, Application US/09071838
; Patent No. US20020152501A1
  GENERAL INFORMATION:
    APPLICANT: Fischer, Robert L.
    APPLICANT: Ohad, Nir
    APPLICANT: Kiyosue, Tomohiro
APPLICANT: Yadegari, Ramin
    APPLICANT: Margossian, Linda
    APPLICANT: Harada, John
    APPLICANT: Goldberg, Robert B.
    TITLE OF INVENTION: Nucleic Acids That Control Seed and
    TITLE OF INVENTION: Fruit Development in Plants
    NUMBER OF SEQUENCES: 324
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Townsend and Townsend and Crew LLP
      STREET: Two Embarcadero Center, Eighth Floor
      CITY: San Francisco
      STATE: California
      COUNTRY: USA
      ZIP: 94111-3834
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
```

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APPLICATION NUMBER: US/09/071,838
      FILING DATE: 01-MAY-1998
      CLASSIFICATION: 800
    ATTORNEY/AGENT INFORMATION:
      NAME: Bastian, Kevin L.
      REGISTRATION NUMBER: 34,774
      REFERENCE/DOCKET NUMBER: 023070-086100US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 576-0200
;
      TELEFAX: (415) 576-0300
  INFORMATION FOR SEQ ID NO: 39:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-071-838-39
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
  Matches 3; Conservative 0; Mismatches
                                                 0; Indels 0; Gaps
                                                                          0;
           8 NIK 10
Qу
             -111
Db
           4 NIK 6
RESULT 21
US-09-982-259-4
; Sequence 4, Application US/09982259
; Publication No. US20020197271A1
; GENERAL INFORMATION:
 APPLICANT: Qiu, Bo
 APPLICANT: Stein, Stanley
  APPLICANT: Brunner, Michael
  APPLICANT: Katz, Michael
  APPLICANT: Zhang, Guobao
 APPLICANT: Sigal, Leonard
 TITLE OF INVENTION: Borellia burgdorferi Epitope Peptides
; FILE REFERENCE: 271/289
 CURRENT APPLICATION NUMBER: US/09/982,259
 CURRENT FILING DATE: 2001-10-17
 NUMBER OF SEQ ID NOS: 7
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Borellia burgdorferi
US-09-982-259-4
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                          0;
           3 KKP 5
Qу
             111
Db
           8 KKP 10
```

```
RESULT 22
US-09-931-375A-77
; Sequence 77, Application US/09931375A
; Publication No. US20030027151A1
; GENERAL INFORMATION:
  APPLICANT: WARMAN, Matthew L.
  APPLICANT: GONG, Yaoqin
  APPLICANT: OLSEN, Bjorn R.
  APPLICANT:
              RAWADI, Georges
  APPLICANT: ROMAN-ROMAN, Sergio
  TITLE OF INVENTION: REGULATOR GENE AND SYSTEM USEFUL FOR THE DIAGNOSIS AND
THERAPY OF
  TITLE OF INVENTION: OSTEOPOROSIS
  FILE REFERENCE: 38464-0004
  CURRENT APPLICATION NUMBER: US/09/931,375A
  CURRENT FILING DATE: 2001-08-17
   PRIOR APPLICATION NUMBER: US 60/304,851
  PRIOR FILING DATE: 2001-07-13
;
  PRIOR APPLICATION NUMBER: US 60/234,337
   PRIOR FILING DATE: 2000-09-22
  PRIOR APPLICATION NUMBER: US 60/226,119
  PRIOR FILING DATE: 2000-08-18
  NUMBER OF SEQ ID NOS: 89
   SOFTWARE: PatentIn version 3.0
; SEQ ID NO 77
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Peptide that can act as an effector of BSMR
US-09-931-375A-77
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
            3; Conservative
                                 0; Mismatches
                                                   0: Indels
                                                                 0; Gaps
                                                                             0;
            6 KRN 8
Qу
              \mathbf{I}
            4 KRN 6
RESULT 23
US-09-906-393A-9
; Sequence 9, Application US/09906393A
; Publication No. US20030039970A1
; GENERAL INFORMATION:
  APPLICANT: Wang, Zhou
  APPLICANT: Xiao, Wuhan
  TITLE OF INVENTION: METHOD OF PROGNOSING CANCER AND THE PROTEINS INVOLVED
  FILE REFERENCE: 1720-1-001CIP
  CURRENT APPLICATION NUMBER: US/09/906,393A
  CURRENT FILING DATE: 2001-07-16
  PRIOR APPLICATION NUMBER: 60/218,761
  PRIOR FILING DATE: 2000-07-17
 NUMBER OF SEQ ID NOS: 36
```

```
; SEQ ID NO 9
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-906-393A-9
  Ouery Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
            3; Conservative 0; Mismatches 0; Indels
  Matches
                                                                             0;
                                                                 0; Gaps
Qу
            3 KKP 5
             \parallel \parallel \parallel
Db
            4 KKP 6
RESULT 24
US-09-982-265-4
; Sequence 4, Application US/09982265
; Publication No. US20030040126A1
; GENERAL INFORMATION:
; APPLICANT: Qiu, Bo
; APPLICANT: Stein, Stanley
  APPLICANT: Brunner, Michael
  APPLICANT: Katz, Michael
  APPLICANT: Zhang, Guobao
  APPLICANT: Sigal, Leonard
  TITLE OF INVENTION: Immunological Test Kit with Immunologically Invisible
Carrier
; FILE REFERENCE: 271/287
; CURRENT APPLICATION NUMBER: US/09/982,265
; CURRENT FILING DATE: 2001-10-17
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Borellia burgdorferi
US-09-982-265-4
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
            3; Conservative 0; Mismatches 0; Indels
 Matches
                                                                 0; Gaps
                                                                             0;
Qу
           3 KKP 5
             IIII
Db
           8 KKP 10
RESULT 25
US-09-982-287-4
; Sequence 4, Application US/09982287
; Publication No. US20030040127A1
; GENERAL INFORMATION:
; APPLICANT: Qiu, Bo
; APPLICANT: Stein, Stanley
; APPLICANT: Brunner, Michael
```

; SOFTWARE: PatentIn version 3.1

```
APPLICANT:
              Katz, Michael
  APPLICANT:
              Zhang, Guobao
              Sigal, Leonard
  APPLICANT:
  TITLE OF INVENTION: Multiple Epitopes Connected by Carrier
  FILE REFERENCE: 271/090
  CURRENT APPLICATION NUMBER: US/09/982,287
  CURRENT FILING DATE: 2001-10-17
  NUMBER OF SEO ID NOS: 7
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Borellia burgdorferi
US-09-982-287-4
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches
            3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            3 KKP 5
Qу
             \perp
Db
            8 KKP 10
RESULT 26
US-09-882-291-64
; Sequence 64, Application US/09882291
; Publication No. US20030040472A1
; GENERAL INFORMATION:
; APPLICANT: Zealand Pharmaceuticals A/S
  TITLE OF INVENTION: No. US20030040472Alel Peptide Conjugates
  FILE REFERENCE: 007-2001
  CURRENT APPLICATION NUMBER: US/09/882,291
  CURRENT FILING DATE: 2001-06-15
 NUMBER OF SEQ ID NOS: 77
  SOFTWARE: PatentIn version 3.1
;
; SEQ ID NO 64
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-882-291-64
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
 Matches
           3; Conservative
                               0; Mismatches
                                                  0;
                                                       Indels
                                                                 0; Gaps
           2 SKK 4
Qу
           5 SKK 7
RESULT 27
US-09-809-391-698
; Sequence 698, Application US/09809391
```

```
; Publication No. US20030049618A1
 ; GENERAL INFORMATION:
  APPLICANT: Ruben et al.
   TITLE OF INVENTION: 186 Human Secreted proteins
   FILE REFERENCE: PZ002P2
  CURRENT APPLICATION NUMBER: US/09/809,391
; CURRENT FILING DATE: 2001-03-16
; Prior application data removed - consult PALM or file wrapper
; NUMBER OF SEQ ID NOS: 761
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 698
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-809-391-698
                          27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels
            9 IKA 11
Qу
              5 IKA 7
Db
RESULT 28
US-09-226-402-31
; Sequence 31, Application US/09226402
; Publication No. US20030051260A1
   GENERAL INFORMATION:
     APPLICANT: Chada, Kiran K.
     APPLICANT: Ashar, Hena
     APPLICANT: Tkachenko, Alex
     APPLICANT: Zhou, Xianjin
     TITLE OF INVENTION: HMGI Proteins in Cancer and Obesity
     NUMBER OF SEQUENCES: 32
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Richard R. Muccino
       STREET: 758 Springfield Avenue
       CITY: Summit
       STATE: New Jersey
       COUNTRY: USA
       ZIP: 07901
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
;
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC DOS/MS DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/09/226,402
       FILING DATE: 06 JAN 1999
       CLASSIFICATION:
     ATTORNEY/AGENT INFORMATION:
      NAME: Muccino, Richard R.
       REGISTRATION NUMBER: 32,538
. ;
       REFERENCE/DOCKET NUMBER: UMD1 037CIPCIP
     TELECOMMUNICATION INFORMATION:
```

```
TELEPHONE: (908) 273 4988
       TELEFAX: (908) 273 4679
   INFORMATION FOR SEQ ID NO: 31:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      STRANDEDNESS: unknown
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
US-09-226-402-31
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
Qу
           5 PKR 7
             \perp
Db
           2 PKR 4
RESULT 29
US-09-876-904A-33
; Sequence 33, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
 CURRENT APPLICATION NUMBER: US/09/876,904A
 CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 33
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic Polyma
  OTHER INFORMATION: major capsid protein VP1
US-09-876-904A-33
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches 3; Conservative
                              0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           5 PKR 7
Qy
             111
Db
           2 PKR 4
```

```
RESULT 30
US-09-876-904A-202
; Sequence 202, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 202
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Schizosaccharomyces pombe
   OTHER INFORMATION: Karyophilic peptide
US-09-876-904A-202
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           8 NIK 10
Qv
             \pm 1.11
Db
           2 NIK 4
RESULT 31
US-09-876-904A-389
; Sequence 389, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 389
  LENGTH: 11
  TYPE: PRT
```

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FEATURE:
   OTHER INFORMATION: C. elegans Sdc-3 protein.
US-09-876-904A-389
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           2 SKK 4
Qy
             111
           1 SKK 3
Db
RESULT 32
US-09-876-904A-591
; Sequence 591, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
 FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 591
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown Organism
   FEATURE:
   OTHER INFORMATION: Description of Unknown Organism: Trout testis H1 (194
;
aa).
US-09-876-904A-591
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0:
 Matches
Qy
           3 KKP 5
             9 KKP 11
Db
RESULT 33
US-09-876-904A-610
; Sequence 610, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
```

ORGANISM: Caenorhabditis elegans

```
TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
 CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
 PRIOR APPLICATION NUMBER: US 60/210,925
 PRIOR FILING DATE: 2000-06-09
 NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 610
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Bos sp.
   FEATURE:
   OTHER INFORMATION: Calf Thymus HMG17 (89aa; 9,248 D).
US-09-876-904A-610
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            5 PKR 7
Qу
              \parallel \parallel \parallel
           3 PKR 5
ħħ
RESULT 34
US-09-876-904A-622
; Sequence 622, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
 TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 622
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown Organism
   FEATURE:
   OTHER INFORMATION: Description of Unknown Organism: Trout testis H6 (60 aa).
US-09-876-904A-622
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
```

```
3; Conservative
                               0; Mismatches 0; Indels
                                                                             0;
 Matches
                                                                 0; Gaps
            4 KPK 6
Qу
              \perp
            1 KPK 3
RESULT 35
US-09-839-884-53
; Sequence 53, Application US/09839884
; Publication No. US20030087322A9
; GENERAL INFORMATION:
  APPLICANT: Aebersold, Rudolf H.
  APPLICANT: Gelb, Michael H
  APPLICANT: Gygi, Steven
              Scott, C R
  APPLICANT:
  APPLICANT: Turecek, Frantisek
  APPLICANT: Gerber, Scott A
  APPLICANT: Rist, Beate
;
  TITLE OF INVENTION: Rapid Quantitative Analysis of Proteins or Protein
;
  TITLE OF INVENTION: Function in Complex Mixture
;
  FILE REFERENCE: 64-98A
  CURRENT APPLICATION NUMBER: US/09/839,884
  CURRENT FILING DATE: 2001-04-20
  PRIOR APPLICATION NUMBER: 09/383,062
  PRIOR FILING DATE: 1999-08-25
  PRIOR APPLICATION NUMBER: 60/097,788
  PRIOR FILING DATE: 1998-08-25
;
  NUMBER OF SEQ ID NOS: 64
;
  SOFTWARE: PatentIn Ver. 2.0
;
; SEQ ID NO 53
   LENGTH: 11
   TYPE: PRT
;
   ORGANISM: yeast
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (2)
   OTHER INFORMATION: C at position 2 is ICAT-labeled cysteinyl residue.
US-09-839-884-53
 Query Match
                          27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
                                0; Mismatches
 Matches
            3; Conservative
                                                 0: Indels
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                                                                     Gaps
                                                                             0;
            8 NIK 10
Qу
              111
            4 NIK 6
Db
RESULT 36
US-09-992-665-12
; Sequence 12, Application US/09992665
; Publication No. US20030092009A1
; GENERAL INFORMATION:
  APPLICANT: Kaia Palm
; TITLE OF INVENTION: PROFILING TUMOR SPECIFIC MARKERS FOR THE
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF NEOPLASTIC DISEASE
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FILE REFERENCE: CEMINES.002A
  CURRENT APPLICATION NUMBER: US/09/992,665
  CURRENT FILING DATE: 2001-11-13
  PRIOR APPLICATION NUMBER: 60/249,508
  PRIOR FILING DATE: 2000-11-16
  NUMBER OF SEQ ID NOS: 380
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Probe
US-09-992-665-12
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  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0:
            4 KPK 6
Qу
              +111
            4 KPK 6
RESULT 37
US-09-852-910-131
; Sequence 131, Application US/09852910
; Publication No. US20030096297A1
; GENERAL INFORMATION:
  APPLICANT: Hamm, Heidi
  APPLICANT: Gilchrist, Annette
  TITLE OF INVENTION: Method For Identifying Inhibitors of G Protein Coupled
Receptor Signaling
 FILE REFERENCE: 2661-101
  CURRENT APPLICATION NUMBER: US/09/852,910
  CURRENT FILING DATE: 2001-09-18
  PRIOR APPLICATION NUMBER: US 60/275,472
  PRIOR FILING DATE: 2001-03-14
  NUMBER OF SEQ ID NOS: 271
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 131
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   NAME/KEY: misc feature
   LOCATION: (1)..(11)
   OTHER INFORMATION: G alpha t library peptide
US-09-852-910-131
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches
            3; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
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Qу
           8 NIK 10
             \perp
Db
           4 NIK 6
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RESULT 38
US-09-852-910-248
; Sequence 248, Application US/09852910
; Publication No. US20030096297A1
; GENERAL INFORMATION:
; APPLICANT: Hamm, Heidi
  APPLICANT: Gilchrist, Annette
  TITLE OF INVENTION: Method For Identifying Inhibitors of G Protein Coupled
Receptor Signaling
; FILE REFERENCE: 2661-101
  CURRENT APPLICATION NUMBER: US/09/852,910
  CURRENT FILING DATE: 2001-09-18
  PRIOR APPLICATION NUMBER: US 60/275,472
  PRIOR FILING DATE: 2001-03-14
  NUMBER OF SEQ ID NOS: 271
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 248
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   NAME/KEY: misc feature
   LOCATION: (1)..(11)
   OTHER INFORMATION: Gll library peptide
US-09-852-910-248
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  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
 Matches
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                                                 0;
                                                     Indels
                                                                0; Gaps
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           4 KPK 6
QУ
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            4 KPK 6
RESULT 39
US-09-865-548A-35
; Sequence 35, Application US/09865548A
; Publication No. US20030096298A1
; GENERAL INFORMATION:
; APPLICANT: Barnea, Eilon
; APPLICANT: Beer, Ilan
  APPLICANT: Ziv, Tamar
  APPLICANT: Admon, Arie
  TITLE OF INVENTION: METHOD OF IDENTIFYING PEPTIDES CAPABLE OF BINDING TO MHC
MOLECULES,
  TITLE OF INVENTION: PEPTIDES IDENTIFIED THEREBY AND THEIR USES
  FILE REFERENCE: 01/22080
  CURRENT APPLICATION NUMBER: US/09/865,548A
  CURRENT FILING DATE: 2001-05-16
  PRIOR APPLICATION NUMBER: US 60/290,958
  PRIOR FILING DATE: 2001-05-16
 NUMBER OF SEQ ID NOS: 204
 SOFTWARE: PatentIn version 3.1
; SEQ ID NO 35
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LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: synthetic peptide
US-09-865-548A-35
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                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches
                                                     Indels
                                                                 0; Gaps
                                                                             0;
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Qy
              +111
            2 ASK 4
Db
RESULT 40
US-09-974-992-39
; Sequence 39, Application US/09974992
; Publication No. US20030138866A1
; GENERAL INFORMATION:
  APPLICANT: Mathiesen, Marianne J.
  APPLICANT: Theisen, Michael
  APPLICANT: Holm, Arne
  APPLICANT: Ostergaard, Soren
  TITLE OF INVENTION: No. US20030138866A1el OspC-derived peptide fragments
   FILE REFERENCE: 459-666P
  CURRENT APPLICATION NUMBER: US/09/974,992
  CURRENT FILING DATE: 2001-10-10
  PRIOR APPLICATION NUMBER: 09/180,089
  PRIOR FILING DATE: 1999-05-13
  PRIOR APPLICATION NUMBER: PCT/DK97/00203
  PRIOR FILING DATE: 1997-05-02
  NUMBER OF SEQ ID NOS: 40
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 39
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: Substitution
    OTHER INFORMATION: analogue of OspC peptide
US-09-974-992-39
 Query Match
                          27.3%; Score 3; DB 10; Length 11;
                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
 Matches
            3; Conservative 0; Mismatches 0;
                                                     Indels
                                                                     Gaps
                                                                             0;
Qу
            3 KKP 5
             \perp
Db
            9 KKP 11
RESULT 41
US-09-974-992-40
; Sequence 40, Application US/09974992
; Publication No. US20030138866A1
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; GENERAL INFORMATION:
  APPLICANT: Mathiesen, Marianne J.
  APPLICANT: Theisen, Michael
  APPLICANT: Holm, Arne
  APPLICANT: Ostergaard, Soren
  TITLE OF INVENTION: No. US20030138866A1el OspC-derived peptide fragments
;
  FILE REFERENCE: 459-666P
  CURRENT APPLICATION NUMBER: US/09/974,992
  CURRENT FILING DATE: 2001-10-10
  PRIOR APPLICATION NUMBER: 09/180,089
  PRIOR FILING DATE: 1999-05-13
  PRIOR APPLICATION NUMBER: PCT/DK97/00203
  PRIOR FILING DATE: 1997-05-02
  NUMBER OF SEQ ID NOS: 40
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 40
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:
                                                           Substitution
   OTHER INFORMATION: analogue of OspC c-terminal peptide
   OTHER INFORMATION: Xaa is 6-aminohexanoic acid
US-09-974-992-40
 Query Match
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 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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                              0; Mismatches 0;
                                                                0; Gaps
 Matches
           3; Conservative
                                                     Indels
           3 KKP 5
Qу
             IIII
Db
           9 KKP 11
RESULT 42
US-09-791-524-15
; Sequence 15, Application US/09791524
; Publication No. US20030143209A1
; GENERAL INFORMATION:
; APPLICANT: Aventis Pharmaceuticals Products Inc.
 TITLE OF INVENTION: Targeted Adenovirus Vectors For Delivery Of
Heterologous Genes
 FILE REFERENCE:
                    A3319A
  CURRENT APPLICATION NUMBER: US/09/791,524
  CURRENT FILING DATE: 2001-02-22
  PRIOR APPLICATION NUMBER:
                              60/09828
  PRIOR FILING DATE:
                      1998-08-27
 NUMBER OF SEQ ID NOS:
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  SOFTWARE:
              PatentIn version 3.0
; SEQ ID NO 15
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Adenovirus
US-09-791-524-15
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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3; Conservative 0; Mismatches
            2 SKK 4
Qу
              ++1
            2 SKK 4
Db
RESULT 43
US-09-829-922-4
; Sequence 4, Application US/09829922
; Publication No. US20030171537A1
; GENERAL INFORMATION:
  APPLICANT: Halazonetis, Thanos
  APPLICANT: Hartwig, Wolfgang
  TITLE OF INVENTION: Peptides and peptidomimetics with
  TITLE OF INVENTION: structural similarity to human p53 that activate p53
  TITLE OF INVENTION: function
  FILE REFERENCE: 2973.19998
  CURRENT APPLICATION NUMBER: US/09/829,922
  CURRENT FILING DATE: 2001-04-11
  PRIOR APPLICATION NUMBER: 08/894,327
   PRIOR FILING DATE: 1997-12-04
  PRIOR APPLICATION NUMBER: pctus96/01535
  PRIOR FILING DATE: 1996-02-16
  PRIOR APPLICATION NUMBER: 08/392,542
  PRIOR FILING DATE: 1995-02-16
  NUMBER OF SEQ ID NOS: 35
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-829-922-4
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches
             3; Conservative
                                0; Mismatches
                                                   0;
                                                      Indels
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                                                                             0;
            2 SKK 4
Qу
              +111
Db
            9 SKK 11
RESULT 44
US-09-854-248-21
; Sequence 21, Application US/09854248
; Publication No. US20030175247A1
; GENERAL INFORMATION:
  APPLICANT: Salgaller, Michael L.
  APPLICANT: Boynton, Alton L.
  TITLE OF INVENTION: METHOD TO INCREASE CLASS I PRESENTATION OF EXOGENOUS
  TITLE OF INVENTION: ANTIGENS BY HUMAN DENDRITIC CELLS
  FILE REFERENCE: 20093-8-1US
  CURRENT APPLICATION NUMBER: US/09/854,248
  CURRENT FILING DATE: 2001-05-11
  PRIOR APPLICATION NUMBER: 60/203,758
  PRIOR FILING DATE: 2000-05-12
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0; Indels

0;

0; Gaps

Matches

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NUMBER OF SEQ ID NOS: 37
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 21
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-854-248-21
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
             3; Conservative
                                0; Mismatches
  Matches
                                                 0; Indels
                                                                  0;
                                                                     Gaps
                                                                              0;
            8 NIK 10
Qy
              \perp
Db
            7 NIK 9
RESULT 45
US-09-882-171-698
; Sequence 698, Application US/09882171
; Publication No. US20030175858A1
; GENERAL INFORMATION:
  APPLICANT: Ruben et al.
  TITLE OF INVENTION: 186 Human Secreted proteins
  FILE REFERENCE: PZ002P2
   CURRENT APPLICATION NUMBER: US/09/882,171
   CURRENT FILING DATE: 2001-06-18
  PRIOR APPLICATION NUMBER: 09/809,391
  PRIOR FILING DATE: 2001-03-16
   PRIOR APPLICATION NUMBER: 09/149,476
   PRIOR FILING DATE: 1998-09-08
;
  PRIOR APPLICATION NUMBER: PCT/US98/04493
  PRIOR FILING DATE: 1998-03-06
  PRIOR APPLICATION NUMBER: 60/040,162
   PRIOR FILING DATE: 1997-03-07
   PRIOR APPLICATION NUMBER: 60/040,333
  PRIOR FILING DATE: 1997-03-07
   PRIOR APPLICATION NUMBER: 60/038,621
   PRIOR FILING DATE: 1997-03-07
   PRIOR APPLICATION NUMBER: 60/040,626
;
  PRIOR FILING DATE: 1997-03-07
   PRIOR APPLICATION NUMBER: 60/040,334
  PRIOR FILING DATE: 1997-03-07
  PRIOR APPLICATION NUMBER: 60/040,336
  PRIOR FILING DATE: 1997-03-07
;
  PRIOR APPLICATION NUMBER: 60/040,163
  PRIOR FILING DATE: 1997-03-07
  PRIOR APPLICATION NUMBER: 60/047,600
ï
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/047,615
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/047,597
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/047,502
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/047,633
; PRIOR FILING DATE: 1997-05-23
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; PRIOR APPLICATION NUMBER: 60/047,583
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- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,617
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,618
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- ; PRIOR APPLICATION NUMBER: 60/047,503
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,592
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,581
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,584
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,500
- ; PRIOR FILING DATE: 1997-05-23
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- ; PRIOR FILING DATE: 1997-05-23
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- ; PRIOR APPLICATION NUMBER: 60/047,613
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,582
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,596
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,612
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,632
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,601
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/043,580
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,568
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,314
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,569
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,311
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,671
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,674
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,669
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,312
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- ; PRIOR APPLICATION NUMBER: 60/043,313
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,672
- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/043,315

- ; PRIOR FILING DATE: 1997-04-11
- ; PRIOR APPLICATION NUMBER: 60/048,974
- PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/056,886
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/056,877
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/056,889
- ; PRIOR FILING DATE: 1997-08-22
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- ; PRIOR FILING DATE: 1997-08-22
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- ; PRIOR FILING DATE: 1997-08-22
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- ; PRIOR APPLICATION NUMBER: 60/056,872
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- ; PRIOR APPLICATION NUMBER: 60/056,637
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- ; PRIOR APPLICATION NUMBER: 60/056,903
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- ; PRIOR APPLICATION NUMBER: 60/056,888
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- ; PRIOR APPLICATION NUMBER: 60/056,894
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- ; PRIOR APPLICATION NUMBER: 60/056,911
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/056,636
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/056,874
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/056,910
- PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/056,864
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/056,631
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/056,845
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/056,892
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/057,761
- ; PRIOR FILING DATE: 1997-08-22
- ; PRIOR APPLICATION NUMBER: 60/047,595
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,599
- ; PRIOR FILING DATE: 1997-05-23
- ; PRIOR APPLICATION NUMBER: 60/047,588
- ; PRIOR FILING DATE: 1997-05-23

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PRIOR APPLICATION NUMBER: 60/047,585
  PRIOR FILING DATE: 1997-05-23
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  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/047,590
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/047,594
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/047,589
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/047,593
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/047,614
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/043,578
  PRIOR FILING DATE: 1997-04-11
  PRIOR APPLICATION NUMBER: 60/043,576
  PRIOR FILING DATE: 1997-04-11
  PRIOR APPLICATION NUMBER: 60/047,501
  PRIOR FILING DATE: 1997-05-23
  PRIOR APPLICATION NUMBER: 60/043,670
  PRIOR FILING DATE: 1997-04-11
  PRIOR APPLICATION NUMBER: 60/056,632
  PRIOR FILING DATE: 1997-08-22
  PRIOR APPLICATION NUMBER: 60/056,664
  PRIOR FILING DATE: 1997-08-22
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  PRIOR FILING DATE: 1997-08-22
  PRIOR APPLICATION NUMBER: 60/056,881
  PRIOR FILING DATE: 1997-08-22
  PRIOR APPLICATION NUMBER: 60/056,909
  PRIOR FILING DATE: 1997-08-22
  PRIOR APPLICATION NUMBER: 60/056,875
  PRIOR FILING DATE: 1997-08-22
  PRIOR APPLICATION NUMBER: 60/056,862
  PRIOR FILING DATE: 1997-08-22
  PRIOR APPLICATION NUMBER: 60/056,887
  PRIOR FILING DATE: 1997-08-22
  PRIOR APPLICATION NUMBER: 60/056,908
  PRIOR FILING DATE: 1997-08-22
  PRIOR APPLICATION NUMBER: 60/048,964
  PRIOR FILING DATE: 1997-06-06
  PRIOR APPLICATION NUMBER: 60/057,650
  PRIOR FILING DATE: 1997-09-05
  PRIOR APPLICATION NUMBER: 60/056,884
  PRIOR FILING DATE: 1997-08-22
  PRIOR APPLICATION NUMBER: 60/057,669
  PRIOR FILING DATE: 1997-09-05
 Query Match
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 Best Local Similarity
                          100.0%; Pred. No. 8.3e+03;
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            3; Conservative
 Matches
           9 IKA 11
Qу
              111
Ŋh
            5 IKA 7
```

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RESULT 46
US-09-378-967-4
; Sequence 4, Application US/09378967
 Publication No. US20030185818A1
  GENERAL INFORMATION:
    APPLICANT: WALDMANN, HERMAN
    APPLICANT: SIMS, MARTIN J.
    APPLICANT: CROWE, J. SCOTT
     TITLE OF INVENTION: HUMANIZED ANTIBODY AGAINST CD18
    NUMBER OF SEQUENCES: 35
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
      STREET: TWO MILITIA DRIVE
      CITY: LEXINGTON
      STATE: MASSACHUSETTS
      COUNTRY: USA
      ZIP: 02421
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/09/378,967
       FILING DATE: 23-AUG-1999
     CLASSIFICATION: 424
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/465,313
       FILING DATE: 05-JUN-1995
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/182,067
       FILING DATE: 23-MAR-1994
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: PCT/GB92/01289
       FILING DATE: 15-JUL-1992
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: GB 9115364.3
       FILING DATE: 16-JUL-1991
     ATTORNEY/AGENT INFORMATION:
       NAME: WENDLER, HELEN E.
       REGISTRATION NUMBER: 37,964
       REFERENCE/DOCKET NUMBER: LYNX91-01A3
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (781) 861-6240
       TELEFAX: (781) 861-9540
   INFORMATION FOR SEQ ID NO: 4:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
     MOLECULE TYPE: protein
US-09-378-967-4
                          27.3%; Score 3; DB 10; Length 11;
  Query Match
                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
                                                  0; Indels 0; Gaps
                                                                            0;
             3; Conservative 0; Mismatches
```

```
1 ASK 3
Qу
              \Box
            2 ASK 4
Db
RESULT 47
US-09-795-798-13
; Sequence 13, Application US/09795798
 Publication No. US20030207336A1
    GENERAL INFORMATION:
         APPLICANT: Presta, Leonard G.
;
                    Jardieu, Paula M.
         TITLE OF INVENTION: Humanized Anti-CD11a Antibodies
         NUMBER OF SEQUENCES: 24
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Genentech, Inc.
              STREET: 1 DNA Way
              CITY: South San Francisco
              STATE: California
              COUNTRY: USA
              ZIP: 94080
         COMPUTER READABLE FORM:
              MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: WinPatin (Genentech)
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/795,798
              FILING DATE: 28-Feb-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/974,899
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Lee, Wendy M.
              REGISTRATION NUMBER: 40,378
              REFERENCE/DOCKET NUMBER: P1014R1
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 650/225-1994
              TELEFAX: 650/952-9881
    INFORMATION FOR SEQ ID NO: 13:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: Amino Acid
              TOPOLOGY: Linear
         SEQUENCE DESCRIPTION: SEQ ID NO: 13:
US-09-795-798-13
                          27.3%; Score 3; DB 11; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
  Matches
             3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
            1 ASK 3
Qу
              111
Db
            2 ASK 4
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RESULT 48
US-09-773-830-10
; Sequence 10, Application US/09773830
 ; Publication No. US20030220482A1
; GENERAL INFORMATION:
; APPLICANT: Ziwei Huang
   APPLICANT: Jiansong Luo
   APPLICANT: Zhaowen Luo
   APPLICANT: Naming Zhou
   TITLE OF INVENTION: A No. US20030220482Alel Peptide Antagonist of CXCR4
   TITLE OF INVENTION: Derived from the N-Terminus of Viral Chemokine vMIP-II
   FILE REFERENCE: HUA01-NP007
   CURRENT APPLICATION NUMBER: US/09/773,830
   CURRENT FILING DATE: 2002-06-14
   PRIOR APPLICATION NUMBER: 60/180,487
   PRIOR FILING DATE: 2000-02-03
   NUMBER OF SEO ID NOS: 33
   SOFTWARE: FastSEQ for Windows Version 4.0
  SEQ ID NO 10
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: v-MIPII derived peptide
US-09-773-830-10
                          27.3%; Score 3; DB 11; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
             3; Conservative
            1 ASK 3
Qу
              6 ASK 8
Db
RESULT 49
US-10-398-104-197
 ; Sequence 197, Application US/10398104
 ; Publication No. US20040047880A1
; GENERAL INFORMATION:
 ; APPLICANT: De Bolle, Xavier Thomas
 ; APPLICANT: Letesson, Jean-Jacques
  APPLICANT: Lobet, Yves
   APPLICANT: Mertens, Pascal Yvon
   APPLICANT: Poolman, Jan
   APPLICANT: Voet, Pierre
   TITLE OF INVENTION: COMPONENT FOR VACCINE
   FILE REFERENCE: B45242
   CURRENT APPLICATION NUMBER: US/10/398,104
   CURRENT FILING DATE: 2003-01-04
   PRIOR APPLICATION NUMBER: PCT/EP01/11409
   PRIOR FILING DATE: 2001-10-03
   PRIOR APPLICATION NUMBER: GB 0024200.8
   PRIOR FILING DATE: 2000-10-03
 ; NUMBER OF SEQ ID NOS: 352
 ; SOFTWARE: FastSEQ for Windows Version 4.0
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; SEQ ID NO 197
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: LOS peptide mimotope sequence
US-10-398-104-197
                          27.3%; Score 3; DB 12; Length 11;
 Query Match
                          100.0%; Pred. No. 8.3e+03;
 Best Local Similarity
                                0; Mismatches
                                                       Indels
                                                                     Gaps
            3; Conservative
           5 PKR 7
Qγ
              III
           7 PKR 9
Db
RESULT 50
US-10-458-860-5
; Sequence 5, Application US/10458860
; Publication No. US20040049800A1
; GENERAL INFORMATION:
  APPLICANT: Kopin, Alan S.
  APPLICANT: Beinborn, Martin
  TITLE OF INVENTION: Rapid Methods For Assessing Therapeutic
  TITLE OF INVENTION: Activity Using Animals Expressing Constitutively Active
G
  TITLE OF INVENTION: Protein-Coupled Receptors
  FILE REFERENCE: 00398/517002
  CURRENT APPLICATION NUMBER: US/10/458,860
  CURRENT FILING DATE: 2003-06-11
  PRIOR APPLICATION NUMBER: US 60/388,450
  PRIOR FILING DATE: 2002-06-13
  NUMBER OF SEQ ID NOS: 87
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 5
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Synthetic fragment
US-10-458-860-5
  Query Match
                          27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative
                                 0; Mismatches
                                                                             0;
 Matches
                                                 0; Indels
                                                                 0; Gaps
            1 ASK 3
Qу
              \mathbf{I}
           5 ASK 7
Db
RESULT 51
US-10-344-878-17
; Sequence 17, Application US/10344878
; Publication No. US20040053848A1
; GENERAL INFORMATION:
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APPLICANT: The University of Virginia Patent Foundation
  APPLICANT: Allis, C. David
  APPLICANT: Strahl, Brian D
  TITLE OF INVENTION: Antibodies Specific for Methylated Lysines in Histones
  FILE REFERENCE: 00601-02
  CURRENT APPLICATION NUMBER: US/10/344,878
  CURRENT FILING DATE: 2003-08-14
  PRIOR APPLICATION NUMBER: US 60/227,767
  PRIOR FILING DATE: 2000-08-25
  PRIOR APPLICATION NUMBER: US 60/302,747
  PRIOR FILING DATE: 2001-07-03
  NUMBER OF SEQ ID NOS: 18
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial
   FEATURE:
   OTHER INFORMATION: synthetic peptide used to raise antibodies against the H3
amino
    OTHER INFORMATION: terminus having MeLys at the fifth amino acid position
;
    FEATURE:
   NAME/KEY: MOD RES
    LOCATION: (5)..(5)
    OTHER INFORMATION: METHYLATION
    FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (10)..(11)
    OTHER INFORMATION: artificial amino acids added to the natural histone
    OTHER INFORMATION: aid in the production of the antibody
US-10-344-878-17
                          27.3%; Score 3; DB 12; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                               0; Mismatches
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  Matches
            3; Conservative
            3 KKP 5
QУ
              111
            5 KKP 7
RESULT 52
US-10-371-406B-8
; Sequence 8, Application US/10371406B
; Publication No. US20040053828A1
; GENERAL INFORMATION:
; APPLICANT: Mayo, Kevin H.
; APPLICANT: Hoye, Thomas R.
; APPLICANT: Flader Lavey, Carolee
  TITLE OF INVENTION: Partial Peptide Mimetics and Methods
  FILE REFERENCE: 110.01710101
  CURRENT APPLICATION NUMBER: US/10/371,406B
  CURRENT FILING DATE: 2003-02-20
  PRIOR APPLICATION NUMBER: 60/359,272
; PRIOR FILING DATE: 2002-02-20
; NUMBER OF SEQ ID NOS: 17
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; SEQ ID NO 8
   LENGTH: 11
   TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
    FEATURE:
   OTHER INFORMATION: Artificially Synthesized Peptide
US-10-371-406B-8
                         27.3%; Score 3; DB 12; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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            3; Conservative
           8 NIK 10
Qу
             \perp
           2 NIK 4
RESULT 53
US-10-239-103-10
; Sequence 10, Application US/10239103
; Publication No. US20040057961A1
; GENERAL INFORMATION:
; APPLICANT: Brown University Research Foundation
  APPLICANT: DeGroot, Anne S
  TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
  FILE REFERENCE: 17999-004-061
  CURRENT APPLICATION NUMBER: US/10/239,103
  CURRENT FILING DATE: 2002-09-19
 PRIOR APPLICATION NUMBER: 09/813,333
; PRIOR FILING DATE: 2001-03-20
; PRIOR APPLICATION NUMBER: 60/190,834
; PRIOR FILING DATE: 2000-03-20
 NUMBER OF SEQ ID NOS: 81
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Mycobacterium tuberculosis
US-10-239-103-10
                          27.3%; Score 3; DB 12; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
            3; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                             0;
  Matches
            9 IKA 11
Qy
              \perp 1 \perp 1
            3 IKA 5
Db
RESULT 54
US-10-039-645-5
; Sequence 5, Application US/10039645
; Publication No. US20020147170A1
; GENERAL INFORMATION:
; APPLICANT: Kopin, Alan S.
; APPLICANT: Beinborn, Martin
```

SOFTWARE: PatentIn version 3.2

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TITLE OF INVENTION: Constitutively Active, Hypersensitive,
 TITLE OF INVENTION: and No. US20020147170Alfunctional Receptors as No.
US20020147170Alel Therapeutic Agents
  FILE REFERENCE: 00398/510002
  CURRENT APPLICATION NUMBER: US/10/039,645
  CURRENT FILING DATE: 2001-10-25
  PRIOR APPLICATION NUMBER: US 60/243,550
  PRIOR FILING DATE: 2000-10-26
  NUMBER OF SEQ ID NOS: 87
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 5
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-10-039-645-5
                          27.3%; Score 3; DB 13; Length 11;
  Query Match
                          100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
  Matches
            3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            1 ASK 3
              \perp
Db
            5 ASK 7
RESULT 55
US-10-081-281-59
; Sequence 59, Application US/10081281
  Publication No. US20020151707A1
    GENERAL INFORMATION:
         APPLICANT: Kindsvogel, Wayne
                    Gross, Jane A.
                    Sheppard, Paul
         TITLE OF INVENTION: Immune Mediators and Related Methods
         NUMBER OF SEQUENCES: 121
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Townsend and Townsend and Crew LLP
              STREET: Two Embarcadero Center, Eighth Floor
              CITY: San Francisco
              STATE: California
              COUNTRY: USA
              ZIP: 94111-3834
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/10/081,281
              FILING DATE: 20-Feb-2002
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/09/261,811A
              FILING DATE: 03-Mar-1999
              APPLICATION NUMBER: US 08/480,002
              FILING DATE: 07-JUN-1995
              APPLICATION NUMBER: US 08/482,133
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FILING DATE: 07-JUN-1995
             APPLICATION NUMBER: US 08/483,241
              FILING DATE: 07-JUN-1995
             APPLICATION NUMBER: US 60/005,964
              FILING DATE: 27-OCT-1995
             APPLICATION NUMBER: US 08/657,581
              FILING DATE: 07-JUN-1996
        ATTORNEY/AGENT INFORMATION:
             NAME: Parent, Annette S.
              REGISTRATION NUMBER: 42,058
              REFERENCE/DOCKET NUMBER: 014058-005630US
         TELECOMMUNICATION INFORMATION:
             TELEPHONE: (415) 576-0200
             TELEFAX: (415) 576-0300
   INFORMATION FOR SEQ ID NO: 59:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
             TYPE: amino acid
             STRANDEDNESS: <Unknown>
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        FEATURE:
             NAME/KEY: Modified-site
             LOCATION:
                        11
             OTHER INFORMATION: /product= "OTHER"
              /note= "Xaa = threoninamide"
         SEQUENCE DESCRIPTION: SEQ ID NO: 59:
US-10-081-281-59
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                          27.3%; Score 3; DB 13; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches
            3; Conservative
                              0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
            9 IKA 11
             -111
            1 IKA 3
RESULT 56
US-10-081-281-73
; Sequence 73, Application US/10081281
; Publication No. US20020151707A1
    GENERAL INFORMATION:
        APPLICANT: Kindsvogel, Wayne
                    Gross, Jane A.
                    Sheppard, Paul
         TITLE OF INVENTION: Immune Mediators and Related Methods
        NUMBER OF SEQUENCES: 121
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Townsend and Townsend and Crew LLP
              STREET: Two Embarcadero Center, Eighth Floor
              CITY: San Francisco
              STATE: California
              COUNTRY: USA
              ZIP: 94111-3834
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
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COMPUTER: IBM PC compatible
;
             OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/081,281
              FILING DATE: 20-Feb-2002
              CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/09/261,811A
              FILING DATE: 03-Mar-1999
             APPLICATION NUMBER: US 08/480,002
             FILING DATE: 07-JUN-1995
             APPLICATION NUMBER: US 08/482,133
             FILING DATE: 07-JUN-1995
             APPLICATION NUMBER: US 08/483,241
             FILING DATE: 07-JUN-1995
             APPLICATION NUMBER: US 60/005,964
             FILING DATE: 27-OCT-1995
             APPLICATION NUMBER: US 08/657,581
              FILING DATE: 07-JUN-1996
        ATTORNEY/AGENT INFORMATION:
             NAME: Parent, Annette S.
              REGISTRATION NUMBER: 42,058
              REFERENCE/DOCKET NUMBER: 014058-005630US
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: (415) 576-0200
              TELEFAX: (415) 576-0300
    INFORMATION FOR SEQ ID NO: 73:
        SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
             STRANDEDNESS: <Unknown>
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
        FEATURE:
             NAME/KEY: Modified-site
              LOCATION:
                        11
              OTHER INFORMATION: /product= "OTHER"
              /note= "Xaa = glutamic acid amide"
        SEQUENCE DESCRIPTION: SEQ ID NO: 73:
US-10-081-281-73
                         27.3%; Score 3; DB 13; Length 11;
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 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
 Matches
           9 IKA 11
Qу
             \perp
           5 IKA 7
Db
RESULT 57
US-10-081-281-77
; Sequence 77, Application US/10081281
; Publication No. US20020151707A1
   GENERAL INFORMATION:
        APPLICANT: Kindsvogel, Wayne
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Gross, Jane A.
                    Sheppard, Paul
        TITLE OF INVENTION: Immune Mediators and Related Methods
        NUMBER OF SEQUENCES: 121
        CORRESPONDENCE ADDRESS:
              ADDRESSEE: Townsend and Townsend and Crew LLP
              STREET: Two Embarcadero Center, Eighth Floor
              CITY: San Francisco
              STATE: California
              COUNTRY: USA
              ZIP: 94111-3834
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/081,281
              FILING DATE: 20-Feb-2002
              CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/09/261,811A
              FILING DATE: 03-Mar-1999
             APPLICATION NUMBER: US 08/480,002
              FILING DATE: 07-JUN-1995
              APPLICATION NUMBER: US 08/482,133
              FILING DATE: 07-JUN-1995
              APPLICATION NUMBER: US 08/483,241
              FILING DATE: 07-JUN-1995
              APPLICATION NUMBER: US 60/005,964
              FILING DATE: 27-OCT-1995
             APPLICATION NUMBER: US 08/657,581
              FILING DATE: 07-JUN-1996
        ATTORNEY/AGENT INFORMATION:
              NAME: Parent, Annette S.
              REGISTRATION NUMBER: 42,058
              REFERENCE/DOCKET NUMBER: 014058-005630US
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: (415) 576-0200
              TELEFAX: (415) 576-0300
   INFORMATION FOR SEQ ID NO: 77:
        SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: <Unknown>
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
        FEATURE:
              NAME/KEY: Modified-site
              LOCATION: 11
              OTHER INFORMATION: /product= "OTHER"
              /note= "Xaa = methioninamide"
        SEQUENCE DESCRIPTION: SEQ ID NO: 77:
US-10-081-281-77
                          27.3%; Score 3; DB 13; Length 11;
  Query Match
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Best Local Similarity 100.0%; Pred. No. 8.3e+03;

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Matches 3; Conservative 0; Mismatches
                                               0; Indels 0; Gaps
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           9 IKA 11
Qу
             +++
           7 IKA 9
Db
RESULT 58
US-10-044-703-10
; Sequence 10, Application US/10044703
; Publication No. US20020192233A1
; GENERAL INFORMATION:
  APPLICANT: DeGroot, Anne S
 TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
; FILE REFERENCE: 17999-004 US
; CURRENT APPLICATION NUMBER: US/10/044,703
  CURRENT FILING DATE: 2002-05-20
 PRIOR APPLICATION NUMBER: 60/190,834
 PRIOR FILING DATE: 2000-03-20
 NUMBER OF SEQ ID NOS: 81
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
  LENGTH: 11
   TYPE: PRT
   ORGANISM: Mycobacterium tuberculosis
US-10-044-703-10
                         27.3%; Score 3; DB 13; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
           9 IKA 11
Qу
             111
Db
           3 IKA 5
RESULT 59
US-10-044-995-3
; Sequence 3, Application US/10044995
; Publication No. US20030049685A1
    GENERAL INFORMATION:
         APPLICANT: DELEYS, ROBERT J
                   POLLET, DIRK
                   MAERTENS, GEERT
                   VAN HEUVERSWUN, HUGO
         TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
                            ANTIBODIES TO HEPATITIS C VIRUS
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
             ADDRESSEE: NIXON & VANDERHYE P.C.
             STREET: 1100 NORTH GLEBE ROAD
             CITY: ARLINGTON
              STATE: VA
              COUNTRY: USA
              ZIP: 22201
         COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
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COMPUTER: IBM PC compatible
;
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/044,995
             FILING DATE: 15-Jan-2002
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/391,671
             FILING DATE: <Unknown>
             APPLICATION NUMBER: US 07/920,286
             FILING DATE: 14-OCT-1992
             APPLICATION NUMBER: WO PCT/EP91/02409
             FILING DATE: 13-DEC-1991
             APPLICATION NUMBER: EP 90124241.2
             FILING DATE: 14-DEC-1990
        ATTORNEY/AGENT INFORMATION:
             NAME: SADOFF, B.J.
             REGISTRATION NUMBER: 36,663
             REFERENCE/DOCKET NUMBER: 1487-5
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 7038164000
             TELEFAX: 7038164100
    INFORMATION FOR SEQ ID NO: 3:
         SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
             TYPE: amino acid
              STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-10-044-995-3
                         27.3%; Score 3; DB 14; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
            3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                             0;
 Matches
            6 KRN 8
Qv
             -111
            5 KRN 7
Dh
RESULT 60
US-10-059-261-35
; Sequence 35, Application US/10059261
; Publication No. US20030077826A1
; GENERAL INFORMATION:
; APPLICANT: EDELMAN, LENA
  APPLICANT: JACOTOT, ETIENNE DANIEL FRANCOIS
  APPLICANT: BRIAND, JEAN-PAUL
  TITLE OF INVENTION: CHIMERIC MOLECULES CONTAINING A MODULE ABLE TO TARGET
  TITLE OF INVENTION: SPECIFIC CELLS AND A MODULE REGULATING THE APOPTOGENIC
  TITLE OF INVENTION: FUNCTION OF THE PERMEABILITY TRANSITION PORE COMPLEX
  TITLE OF INVENTION: (PTPC)
; FILE REFERENCE: 03495.0216
; CURRENT APPLICATION NUMBER: US/10/059,261
; CURRENT FILING DATE: 2002-08-29
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PRIOR APPLICATION NUMBER: 60/265,594
 PRIOR FILING DATE: 2001-02-02
 NUMBER OF SEQ ID NOS: 325
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 35
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: vector pACgp67-
   OTHER INFORMATION: peptide sequence
US-10-059-261-35
                         27.3%; Score 3; DB 14; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                             0; Mismatches
                                                     Indels
            3; Conservative
                                                 0;
           4 KPK 6
Qу
             \mathbf{I}
           4 KPK 6
RESULT 61
US-10-059-261-143
; Sequence 143, Application US/10059261
; Publication No. US20030077826A1
; GENERAL INFORMATION:
; APPLICANT: EDELMAN, LENA
              JACOTOT, ETIENNE DANIEL FRANCOIS
  APPLICANT:
              BRIAND, JEAN-PAUL
  APPLICANT:
  TITLE OF INVENTION: CHIMERIC MOLECULES CONTAINING A MODULE ABLE TO TARGET
  TITLE OF INVENTION: SPECIFIC CELLS AND A MODULE REGULATING THE APOPTOGENIC
  TITLE OF INVENTION: FUNCTION OF THE PERMEABILITY TRANSITION PORE COMPLEX
  TITLE OF INVENTION:
                       (PTPC)
  FILE REFERENCE: 03495.0216
  CURRENT APPLICATION NUMBER: US/10/059,261
  CURRENT FILING DATE: 2002-08-29
  PRIOR APPLICATION NUMBER: 60/265,594
  PRIOR FILING DATE: 2001-02-02
  NUMBER OF SEQ ID NOS: 325
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 143
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: vector pACgp67-
   OTHER INFORMATION: peptide sequence
US-10-059-261-143
                         27.3%; Score 3; DB 14; Length 11;
 Query Match -
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
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Qy ·
           4 KPK 6
```

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RESULT 62
US-10-139-084-5
; Sequence 5, Application US/10139084
; Publication No. US20030087313A1
; GENERAL INFORMATION:
 APPLICANT: Kopin, Alan S.
  APPLICANT: Beinborn, Martin
  TITLE OF INVENTION: Dose Response-Based Methods For
  TITLE OF INVENTION: Identifying Receptors Having Alterations in Signaling
  FILE REFERENCE: 00398/515002
  CURRENT APPLICATION NUMBER: US/10/139,084
  CURRENT FILING DATE: 2002-12-23
  PRIOR APPLICATION NUMBER: US 60/288,647
  PRIOR FILING DATE: 2001-05-03
  NUMBER OF SEQ ID NOS: 74
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 5
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-10-139-084-5
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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          3; Conservative
                               0; Mismatches
                                                   0;
                                                                 0; Gaps
 Matches
                                                       Indels
            1 ASK 3
Qу
              111
            5 ASK 7
Db
RESULT 63
US-10-149-326-12
; Sequence 12, Application US/10149326
; Publication No. US20030100492A1
; GENERAL INFORMATION:
; APPLICANT: Yayon, Avner
  TITLE OF INVENTION: PROTEOGLYCANS AND PHARMACEUTICAL COMPOSITIONS COMPRISING
THEM
; FILE REFERENCE: 01/22063
  CURRENT APPLICATION NUMBER: US/10/149,326
  CURRENT FILING DATE: 2002-06-05
  PRIOR APPLICATION NUMBER: IL 133318
  PRIOR FILING DATE: 1999-12-05
  NUMBER OF SEQ ID NOS: 12
   SOFTWARE: PatentIn version 3.1
; SEQ ID NO 12
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial sequence
    FEATURE:
    OTHER INFORMATION: synthetic peptide
US-10-149-326-12
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27.3%; Score 3; DB 14; Length 11;
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US-10-206-699-238
; Sequence 238, Application US/10206699
; Publication No. US20030100510A1
; GENERAL INFORMATION:
  APPLICANT: Sundaramoorthy, M.
  APPLICANT: Hudson, B.
  TITLE OF INVENTION: Crystallized structure of Type IV Collagen NC1 Domain
Hexamer
  FILE REFERENCE: MBHB 01-1017
   CURRENT APPLICATION NUMBER: US/10/206,699
   CURRENT FILING DATE: 2002-07-26
  PRIOR APPLICATION NUMBER: US 60/308,523
  PRIOR FILING DATE: 2001-07-27
  PRIOR APPLICATION NUMBER: US 60/351,289
  PRIOR FILING DATE: 2001-10-29
  PRIOR APPLICATION NUMBER: US 60/366,854
  PRIOR FILING DATE: 2002-03-22
  PRIOR APPLICATION NUMBER: US 60/385,362
  PRIOR FILING DATE: 2002-06-03
  NUMBER OF SEQ ID NOS: 307
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 238
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    ORGANISM: Homo sapiens
US-10-206-699-238
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US-10-211-088-202
; Sequence 202, Application US/10211088
; Publication No. US20030104479A1
; GENERAL INFORMATION:
; APPLICANT: Bright, Gary R.
; APPLICANT: Premkumar, D. David; APPLICANT: Chen, Yih-Tai
; TITLE OF INVENTION: No. US20030104479Alel Fusion Proteins And Assays For
Molecular Binding
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FILE REFERENCE: 01-1022-US
  CURRENT APPLICATION NUMBER: US/10/211,088
  CURRENT FILING DATE: 2002-10-15
  PRIOR APPLICATION NUMBER: 60/309,395
  PRIOR FILING DATE: 2001-08-01
  PRIOR APPLICATION NUMBER: 60/341,589
  PRIOR FILING DATE: 2001-12-13
  NUMBER OF SEQ ID NOS: 366
  SOFTWARE: PatentIn version 3.1
 SEO ID NO 202
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial sequence
   FEATURE:
   OTHER INFORMATION: Nuclear localization signal
US-10-211-088-202
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US-10-226-007-384
; Sequence 384, Application US/10226007
; Publication No. US20030105277A1
; GENERAL INFORMATION:
  APPLICANT: Myriad Genetics, Inc.
  APPLICANT: Morham, Scott
  APPLICANT: Zavitz, Kenton
  APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Compositions and Therapeutic Methods for Viral Infection
  FILE REFERENCE: 5005.01
  CURRENT APPLICATION NUMBER: US/10/226,007
  CURRENT FILING DATE: 2002-11-15
; PRIOR APPLICATION NUMBER: US 60/313,883
; PRIOR FILING DATE: 2001-08-21
; NUMBER OF SEQ ID NOS: 1673
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 384
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Vesicular stomatitis virus
US-10-226-007-384
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           1 SKK 3
Db
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US-10-213-512-39
; Sequence 39, Application US/10213512
; Publication No. US20030110536A1
; GENERAL INFORMATION:
; APPLICANT: Fischer, Robert L.
  APPLICANT: Ohad, Nir
  APPLICANT: Kiyosue, Tomohiro
  APPLICANT: Yadeqari, Ramin
  APPLICANT: Margossian, Linda
  APPLICANT: Harada, John
APPLICANT: Goldberg, Robert B.
  APPLICANT: The Regents of the University of California
  TITLE OF INVENTION: Combinations of Nucleic Acids That Control Seed and
  TITLE OF INVENTION: Fruit Development in Plants
  FILE REFERENCE: 023070-086110US
  CURRENT APPLICATION NUMBER: US/10/213,512
  CURRENT FILING DATE: 2002-08-06
  PRIOR APPLICATION NUMBER: US/09/177,206
  PRIOR FILING DATE: 1998-10-22
  PRIOR APPLICATION NUMBER: US 09/071,838
   PRIOR FILING DATE: 1998-05-01
   NUMBER OF SEQ ID NOS: 324
   SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 39
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Arabidopsis sp.
US-10-213-512-39
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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            8 NIK 10
QУ
              111
            4 NIK 6
Db
RESULT 68
US-10-160-290-4
; Sequence 4, Application US/10160290
; Publication No. US20030124557A1
    GENERAL INFORMATION:
         APPLICANT: Halazonetis, Thanos
                    Hartwig, Wolfgang
         TITLE OF INVENTION: Peptides nad Peptidomimetics with
                             Structural Similarity to Human p53 That Activate
                             Function
         NUMBER OF SEQUENCES: 35
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Banner, Birch, McKie & Beckett
              STREET: 1001 G Street, N.W.
              CITY: Washington, D.C.
              STATE: District of Columbia
```

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COUNTRY: U.S.
;
              ZIP: 20001
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/10/160,290
              FILING DATE: 04-Jun-2002
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/09/685,027
              FILING DATE: 10-Oct-2000
              APPLICATION NUMBER: 08/392,542
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Posorske, Laurence H.
              REGISTRATION NUMBER: 34,698
              REFERENCE/DOCKET NUMBER: 0486.48439
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 202 508-9100
              TELEFAX: 202 508-9299
    INFORMATION FOR SEQ ID NO: 4:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-10-160-290-4
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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            2 SKK 4
Qv
              111
Db
            9 SKK 11
RESULT 69
US-10-095-818A-19
; Sequence 19, Application US/10095818A
; Publication No. US20030124613A1
; GENERAL INFORMATION:
; APPLICANT: Hildebrand, William H
 APPLICANT: Buchli, Rico
  APPLICANT: Prilliman, Kiley R
  APPLICANT: Hickman, Heather D
   TITLE OF INVENTION: EPITOPE TESTING USING SOLUBLE HLA
  FILE REFERENCE: 6680.042
  CURRENT APPLICATION NUMBER: US/10/095,818A
; CURRENT FILING DATE: 2002-03-11
; PRIOR APPLICATION NUMBER: 60/274,605
; PRIOR FILING DATE: 2001-03-09
; PRIOR APPLICATION NUMBER: 60/362,799
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PRIOR APPLICATION NUMBER: 09/974,366
 PRIOR FILING DATE: 2001-10-01
 PRIOR APPLICATION NUMBER: 10/022,066
 PRIOR FILING DATE: 2001-12-18
 NUMBER OF SEQ ID NOS: 22
 SOFTWARE: PatentIn version 3.1
 SEO ID NO 19
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-095-818A-19
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Qу
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            2 ASK 4
Db
RESULT 70
US-10-234-579-12
; Sequence 12, Application US/10234579
; Publication No. US20030129587A1
    GENERAL INFORMATION:
         APPLICANT: SALLBERG, MATTI
;
         TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
                             EXCHANGER
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: DARBY & DARBY PC
              STREET: 805 Third Avenue
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10022
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/10/234,579
              FILING DATE: 30-Aug-2002
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/08/737,085
              FILING DATE: 27-DEC-1996
         ATTORNEY/AGENT INFORMATION:
              NAME: Green, Reza
              REGISTRATION NUMBER: 38,475
              REFERENCE/DOCKET NUMBER: 3846/0C569
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 212-527-7659
              TELEFAX: 212-753-6237
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PRIOR FILING DATE: 2002-03-07

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   INFORMATION FOR SEQ ID NO: 12:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
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             STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
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US-10-079-167-8
; Sequence 8, Application US/10079167
; Publication No. US20030138454A1
; GENERAL INFORMATION:
  APPLICANT: Hill, Adrian V.S.
  APPLICANT: McShane, Helen
  APPLICANT: Gilbert, Sarah C.
  APPLICANT: Reece, William
   APPLICANT: Schneider, Joerg
  TITLE OF INVENTION: Vaccination Method
  FILE REFERENCE: 2907.1000-001
  CURRENT APPLICATION NUMBER: US/10/079,167
   CURRENT FILING DATE: 2002-02-19
  PRIOR APPLICATION NUMBER: US 09/454,204
  PRIOR FILING DATE: 1999-12-09
   PRIOR APPLICATION NUMBER: PCT/GB98/01681
   PRIOR FILING DATE: 1998-06-09
  PRIOR APPLICATION NUMBER: GB 97 11957.2
  PRIOR FILING DATE: 1997-06-09
  PRIOR APPLICATION NUMBER: PCT/GB01/04116
  PRIOR FILING DATE: 2001-09-13
  PRIOR APPLICATION NUMBER: GB 00 23203.3
  PRIOR FILING DATE: 2001-09-21
  NUMBER OF SEQ ID NOS: 99
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEO ID NO 8
    LENGTH: 11
    TYPE: PRT
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    OTHER INFORMATION: CTL Epitope of the Malaria String
US-10-079-167-8
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Qу
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           1 ASK 3
Db
RESULT 72
US-10-224-999A-1343
; Sequence 1343, Application US/10224999A
; Publication No. US20030171318A1
; GENERAL INFORMATION:
  APPLICANT: Myriad Genetics, Inc.
  APPLICANT: Morham, Scott
  APPLICANT: Zavitz, Kenton
  APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Composition and Method for Treating Viral Infection
  FILE REFERENCE: 5004.01
  CURRENT APPLICATION NUMBER: US/10/224,999A
  CURRENT FILING DATE: 2003-03-03
  PRIOR APPLICATION NUMBER: US 60/313,695
  PRIOR FILING DATE: 2001-08-20
; NUMBER OF SEQ ID NOS: 3484
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1343
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human papillomavirus
US-10-224-999A-1343
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US-10-224-999A-1344
; Sequence 1344, Application US/10224999A
; Publication No. US20030171318A1
; GENERAL INFORMATION:
 APPLICANT: Myriad Genetics, Inc.
  APPLICANT: Morham, Scott
  APPLICANT: Zavitz, Kenton
  APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Composition and Method for Treating Viral Infection
  FILE REFERENCE: 5004.01
  CURRENT APPLICATION NUMBER: US/10/224,999A
  CURRENT FILING DATE: 2003-03-03
  PRIOR APPLICATION NUMBER: US 60/313,695
  PRIOR FILING DATE: 2001-08-20
  NUMBER OF SEQ ID NOS: 3484
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1344
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   ORGANISM: Human papillomavirus
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US-10-224-999A-1345
; Sequence 1345, Application US/10224999A
; Publication No. US20030171318A1
; GENERAL INFORMATION:
  APPLICANT: Myriad Genetics, Inc.
  APPLICANT: Morham, Scott
  APPLICANT: Zavitz, Kenton
   APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Composition and Method for Treating Viral Infection
   FILE REFERENCE: 5004.01
   CURRENT APPLICATION NUMBER: US/10/224,999A
   CURRENT FILING DATE: 2003-03-03
   PRIOR APPLICATION NUMBER: US 60/313,695
   PRIOR FILING DATE: 2001-08-20
  NUMBER OF SEQ ID NOS: 3484
  SOFTWARE: PatentIn version 3.1
 SEQ ID NO 1345
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Human papillomavirus
US-10-224-999A-1345
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            4 KPK 6
Qy
              \perp
            7 KPK 9
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RESULT 75
US-10-224-999A-1346
; Sequence 1346, Application US/10224999A
; Publication No. US20030171318A1
; GENERAL INFORMATION:
  APPLICANT: Myriad Genetics, Inc.
  APPLICANT: Morham, Scott
               Zavitz, Kenton
   APPLICANT:
   APPLICANT: Hobden, Adrian
   TITLE OF INVENTION: Composition and Method for Treating Viral Infection
  FILE REFERENCE: 5004.01
; CURRENT APPLICATION NUMBER: US/10/224,999A
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CURRENT FILING DATE: 2003-03-03
 PRIOR APPLICATION NUMBER: US 60/313,695
 PRIOR FILING DATE: 2001-08-20
 NUMBER OF SEQ ID NOS: 3484
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1346
  LENGTH: 11
   TYPE: PRT
   ORGANISM: Human papillomavirus
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Search completed: April 8, 2004, 16:35:32 Job time : 32.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 27.7692 Seconds

(without alignments)

124.984 Million cell updates/sec

Title: US-09-787-443A-1

Perfect score: 11

Sequence: 1 ASKKPKRNIKA 11

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Gapop 60.0 , Gapext 60.0

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Word size:

Total number of hits satisfying chosen parameters: 460

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: SPTREMBL 25:*

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2: sp_bacteria:*

3: sp_fungi:*

4: sp human:*

5: sp invertebrate:*

6: sp mammal:*

7: sp mhc:*

8: sp_organelle:*

9: sp_phage:*

10: sp_plant:*

11: sp_rodent:*

12: sp_virus:*

13: sp_vertebrate:*

14: sp unclassified:*

15: sp_rvirus:*

16: sp_bacteriap:*

17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result Query

No. Score Match Length DB ID Description

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63	2	18.2	11	8	Q8MES1	Q8mes1 alyogyne pi
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66	2	18.2	11	8	Q8MEL9	Q8mel9 pavonia has
67	2	18.2	11	8	Q8MER0	Q8mer0 hibiscus co
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81	2	18.2	11	10	P82336	P82336 pisum sativ
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87	2	18.2	11	11	Q9QXN6	Q9qxn6 mus musculu
88	2	18.2	11	11	Q7TME3	Q7tme3 mus musculu
89	2	18.2	11	12	P89269	P89269 xestia c-ni
90	2	18.2	11	12	Q997C1	Q997c1 east africa
91	2	18.2	11	12	Q86565	Q86565 varicella-z
92	2	18.2	11	12	Q80GN9	Q80gn9 tomato leaf
93	2	18.2	11	12	Q69269	Q69269 equine herp
94	2	18.2	11	13	Q8AX69	Q8ax69 oreochromis
95	2	18.2	11	13	Q8AX68	Q8ax68 oreochromis
96	2	18.2	11	13	Q7ZZI9	Q7zzi9 motacilla f
97	2	18.2	11	13	Q7ZZI6	Q7zzi6 motacilla f
98	2	18.2	11	15	Q85620	Q85620 moloney mur
99	1	9.1	11	2	Q9AIY6	Q9aiy6 carsonella
100	1	9.1	11	2	068237	068237 borrelia bu

ALIGNMENTS

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RESULT 1
Q9S618
ID
       Q9S618
                         PRELIMINARY;
                                                                 11 AA.
AC
       Q9S618;
       01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DT
DT
DE
       Cytochrome b6/f complex subunit IV (Fragment).
GN
       PETD.
```

```
os
     Prochlorococcus sp.
OC
     Bacteria; Cyanobacteria; Prochlorophytes; Prochlorococcaceae;
OC
     Prochlorococcus.
OX
     NCBI TaxID=1220;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Urbach E., Chisholm S.W.;
     "Genetic diversity in Prochlorococcus populations flow cytometrically
RT
     sorted from the Sargasso Sea and Gulf Stream.";
RT
RL
     Limnol. Oceanog. 43:1615-1630(1998).
     EMBL; AF070132; AAD20740.1; -.
DR
FT
     NON TER
                  11
                         11
     SEQUENCE
                        1297 MW;
                                  5CC38013B7633337 CRC64;
SO
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                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
  Matches
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                                 0; Mismatches
                                                        Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
            3 KKP 5
Qу
              5 KKP 7
Db
RESULT 2
Q25916
ID
     Q25916
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     025916;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DΤ
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     Malaria antigen (7H8/2) (Fragment).
OS
     Plasmodium falciparum.
OC
     Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
OX
     NCBI TaxID=5833;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=91164876; PubMed=1706114;
RA
     Limpaiboon T., Taylor D., Jones G., Geysen H.M., Saul A.;
RT
     "Characterization of a Plasmodium falciparum epitope recognized by a
RT
     monoclonal antibody with broad isolate and species specificity.";
RL
     Southeast Asian J. Trop. Med. Public Health 21:388-396(1990).
DR
     EMBL; M31305; AAA29645.1; -.
FT
     NON TER
                   1
                          1
SO
     SEQUENCE
                11 AA; 1415 MW;
                                  DB03D3BC42C33699 CRC64;
                          27.3%;
  Query Match
                                  Score 3; DB 5; Length 11;
  Best Local Similarity
                          100.0%;
                                  Pred. No. 1.1e+04;
             3; Conservative
  Matches
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
Qу
            7 RNI 9
              9 RNI 11
RESULT 3
095PX6
     Q95PX6
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
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AC
     Q95PX6;
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DE
     Hypothetical protein.
GN
     ZK1236.8.
     Caenorhabditis elegans.
OS
     Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC
     Rhabditidae; Peloderinae; Caenorhabditis.
OC
OX
     NCBI TaxID=6239;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=Bristol N2;
     MEDLINE=99069613; PubMed=9851916;
RX
RA
     None:
RT
     "Genome sequence of the nematode C. elegans: a platform for
     investigating biology. The C. elegans Sequencing Consortium.";
RT
     Science 282:2012-2018(1998).
RL
RN
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
RA
     Favello A.;
RT
     "The sequence of C. elegans cosmid ZK1236.";
RL
     Submitted (MAY-1993) to the EMBL/GenBank/DDBJ databases.
RN
RP
     SEQUENCE FROM N.A.
     STRAIN=Bristol N2;
RC
     Waterston R.;
RA
     "Direct Submission.";
RT
     Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; L13200; AAL11108.1; -.
DR
     WormPep; ZK1236.8; CE29629.
     Hypothetical protein.
KW
     SEQUENCE 11 AA; 1304 MW; DFA3510A25A76322 CRC64;
SQ
  Query Match
                          27.3%; Score 3; DB 5; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
  Matches
             3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
Qу
            2 SKK 4
             Db
            7 SKK 9
RESULT 4
Q9TQS0
ID
     Q9TQS0
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     O9TOS0;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DE
     C-KIT (Fragment).
GN
     KIT.
OS
     Bos taurus (Bovine).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
OC
     Bovidae; Bovinae; Bos.
```

```
ΟX
     NCBI TaxID=9913;
RN
     [1]
RΡ
     SEQUENCE FROM N.A.
     Olsen H.G., Vage D.I., Lien S., Klungland H.;
RA
     "A polymorphism in the bovine c-kit gene.";
RT
     Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AJ243424; CAB60775.1; -.
DR
     EMBL; AJ243060; CAB60774.1; -.
DR
     NON TER
FT
                  1
                          1
FT
     NON TER
                  11
                         11
     SEQUENCE
                        1126 MW; DD785FF8A2D2D772 CRC64;
SQ
                11 AA;
                          27.3%; Score 3; DB 6; Length 11;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 1.1e+04;
 Matches
             3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            9 IKA 11
Qy
              111
Db
            1 IKA 3
RESULT 5
038415
ID
     Q38415
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q38415;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
    Antl protein (Fragment).
DΕ
     Bacteriophage P7.
OS
OC
    Viruses; dsDNA viruses, no RNA stage; Caudovirales; Myoviridae;
OC
    P1-like viruses.
OX
    NCBI_TaxID=10682;
RN
     [1]
RP
    SEQUENCE FROM N.A.
RX
     MEDLINE=90335968; PubMed=1696181;
RA
    Citron M., Schuster H.;
RT
     "The c4 repressors of bacteriophages P1 and P7 are antisense RNAs.";
RL
    Cell 62:591-598(1990).
RN
     [2]
RP
     SEQUENCE FROM N.A.
RX
    MEDLINE=92319637; PubMed=1620606;
RA
     Citron M., Schuster H.;
RT
     "The c4 repressor of bacteriophage P1 is a processed 77 base antisense
RT
    RNA.";
RL
    Nucleic Acids Res. 20:3085-3090(1992).
DR
    EMBL; M35139; AAA32437.1; -.
DR
    PIR; S42449; S42449.
FT
    NON TER
                 11
                         11
SQ
     SEQUENCE
               11 AA; 1315 MW; 38A55C6D11B2C737 CRC64;
 Query Match
                          27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
 Matches
            3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            3 KKP 5
Qу
              \Pi\Pi
```

```
RESULT 6
Q04131
ID
     Q04131
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
     004131;
AC
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Wound induced protein (Fragment).
     Lycopersicon esculentum (Tomato).
OS
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
OC
     lamiids; Solanales; Solanaceae; Solanum.
OX
     NCBI TaxID=4081;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=pik-red; TISSUE=Pericarp;
RX
     MEDLINE=91355936; PubMed=1715787;
RA
     Parsons B.L., Mattoo A.K.;
     "Wound regulated accumulation of specific transcripts in tomato fruit:
RT
RT
     interactions with fruit development, ethylene and light.";
RL
     Plant Mol. Biol. 17:453-464(1991).
DR
     EMBL; X59884; CAA42539.1; -.
DR
     PIR; S19775; S19775.
     NON TER
FT
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SQ
     SEQUENCE
                       1278 MW; 92CB257828733325 CRC64;
                11 AA;
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
  Matches
             3; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                  0;
                                                                               0;
                                                                      Gaps
            2 SKK 4
Qу
              III
Db
            4 SKK 6
RESULT 7
Q86866
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ID
                 PRELIMINARY;
                                   PRT:
                                            11 AA.
AC
     Q86866;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     S-RNA product protein (Fragment).
GN
     S-RNA PRODUCT.
OS
     Lymphocytic choriomeningitis virus.
OC
     Viruses; ssRNA negative-strand viruses; Arenaviridae; Arenavirus.
OX
     NCBI TaxID=11623;
RN
RP
     SEQUENCE FROM N.A.
RX
    MEDLINE=95190990; PubMed=7533851;
RA
    Moskophidis D., Zinkernagel R.M.;
RT
     "Immunobiology of cytotoxic T-cell escape mutants of lymphocytic
RT
     choriomeningitis virus.";
RL
     J. Virol. 69:2187-2193(1995).
```

```
EMBL; S75748; AAB33668.1; -.
DR
     NON TER
FT
                   1
                          1
     SEQUENCE
                11 AA; 1200 MW; 54235C80D9C45B57 CRC64;
SO
  Query Match
                          27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
  Matches
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            9 IKA 11
QУ
              \perp
Db
            1 IKA 3
RESULT 8
086864
ΙD
     Q86864
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q86864;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DΕ
     LCMV viral protein (Fragment).
GN
     LCMV VIRAL PROTEIN.
OS
     Lymphocytic choriomeningitis virus.
OC
     Viruses; ssRNA negative-strand viruses; Arenaviridae; Arenavirus.
OX
     NCBI TaxID=11623;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=95190990; PubMed=7533851;
RX
     Moskophidis D., Zinkernagel R.M.;
RA
     "Immunobiology of cytotoxic T-cell escape mutants of lymphocytic
RT
     choriomeningitis virus.";
RT
RL
     J. Virol. 69:2187-2193(1995).
DR
     EMBL; S75739; AAB33665.1; -.
FT
     NON TER
                   1
                          1
SQ
     SEQUENCE
                11 AA; 1186 MW; D6235C80D9C45B42 CRC64;
  Query Match
                          27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
             3: Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            9 IKA 11
QУ
              111
Db
            1 IKA 3
RESULT 9
Q86868
ID
     Q86868
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     086868;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     S-RNA product protein (Fragment).
GN
     S-RNA PRODUCT.
os
     Lymphocytic choriomeningitis virus.
     Viruses; ssRNA negative-strand viruses; Arenaviridae; Arenavirus.
OC
OX
     NCBI TaxID=11623;
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RN
     [1]
RΡ
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RX
     Moskophidis D., Zinkernagel R.M.;
RA
     "Immunobiology of cytotoxic T-cell escape mutants of lymphocytic
RT
     choriomeningitis virus.";
RT
     J. Virol. 69:2187-2193(1995).
RL
     EMBL; S75751; AAB33671.1; -.
DR
FT
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                          1
                11 AA; 1200 MW; 54235C80D9C45B57 CRC64;
     SEOUENCE
SO
  Query Match
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  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            9 IKA 11
Qу
              \Pi\Pi
Db
            1 IKA 3
RESULT 10
09R790
                 PRELIMINARY;
ΙD
     Q9R790
                                   PRT:
                                            11 AA.
AC
     Q9R790;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Outer surface protein C (Fragment).
DΕ
GN
     OSPC.
OS
     Borrelia garinii.
OC
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OX
     NCBI TaxID=29519;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=G25;
RX
     MEDLINE=97426044; PubMed=9282748;
RA
     Tilly K., Casjens S., Stevenson B., Bono J.L., Samuels D.S., Hogan D.,
RA
RT
     "he Borrelia burgdorferi circular plasmid cp26: conservation of
RT
     plasmid structure and targeted inactivation of the ospC gene.";
RL
     Mol. Microbiol. 25:361-374(1997).
     EMBL; U93700; AAC45535.1; -.
DR
DR
     GO; GO:0009279; C:external outer membrane (sensu Gram-negativ. . .; IEA.
DR
     GO; GO:0003793; F:defense/immunity protein activity; IEA.
     GO; GO:0006952; P:defense response; IEA.
DR
     InterPro; IPR001800; Lipoprotein 6.
DR
DR
     Pfam; PF01441; Lipoprotein 6; 1.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1250 MW; 0868D864C5B731A4 CRC64;
  Ouery Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.2e+05;
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             2; Conservative
                               0; Mismatches 0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            3 KK 4
Qy
              | \cdot |
Db
            2 KK 3
```

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RESULT 11
Q47451
ID
     Q47451
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q47451;
TT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Plasmid pRJ1004 DNA (Fragment).
DE
     Escherichia coli.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=pRJ1004;
     MEDLINE=96130847; PubMed=8594334;
RX
     Brown N.L., Barrett S.R., Camakaris J., Lee B.T., Rouch D.A.;
RA
RT
     "Molecular genetics and transport analysis of the copper-resistance
RT
     determinants (pco) from Escherichia coli plasmid pRJ1004.";
RL
     Mol. Microbiol. 17:1153-1166(1995).
DR
     EMBL; X83541; CAA58524.1; -.
     PIR; S70166; S52252.
DR
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                       1195 MW; 47D864F8ADC1A057 CRC64;
                11 AA;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            8 NI 9
Qу
              2 NI 3
Db
RESULT 12
Q9AIZ7
ID
     Q9AIZ7
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9AIZ7;
DT
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
     Tryptophanyl-tRNA synthetase (Fragment).
GN
     TRPS.
OS
     Carsonella ruddii.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Candidatus Carsonella.
OX
     NCBI TaxID=114186;
RN .
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=20336438; PubMed=10877784;
RA
     Thao M.L., Moran N.A., Abbot P., Brennan E.B., Burckhardt D.H.,
RA
     Baumann P.;
RT
     "Cospeciation of psyllids and their primary prokaryotic
RT
     endosymbionts.";
RL
     Appl. Environ. Microbiol. 66:2898-2905(2000).
RN
     [2]
```

```
RX
     MEDLINE=21125546; PubMed=11222582;
RA
     Clark M.A., Baumann L., Thao M.L., Moran N.A., Baumann P.;
     "Degenerative Minimalism in the Genome of a Psyllid Endosymbiont.";
RT
     J. Bacteriol. 183:1853-1861(2001).
RL
     EMBL; AF211132; AAK15377.1; -.
DR
     GO; GO:0004812; F:tRNA ligase activity; IEA.
DR
KW
     Aminoacyl-tRNA synthetase.
FT
     NON TER
                   1
     SEOUENCE
SO
                11 AA; 1333 MW; A28C67D6533059C6 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
            2; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            9 IK 10
Qy
              6 IK 7
RESULT 13
08RKN1
                                   PRT;
ID
     Q8RKN1
                 PRELIMINARY;
                                           11 AA.
     Q8RKN1;
AC
DT
     01-JUN-2002 (TrEMBLrel. 21, Created)
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
     Beta-lactamase CTX-M-9 (Fragment).
DE
    BLACTX-M-9.
GN
os
    Escherichia coli.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OX
    NCBI TaxID=562;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=743-D;
    Sabate M., Navarro F., Miro E., Campoy S., Mirelis B., Barbe J.,
RA
RA
RT
     "A novel complex sull-type integron in Escherichia coli carrying the
RT
    bla(CTX-M-9) gene.";
RL
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
     EMBL; AY092058; AAM15718.1; -.
DR
FT
     NON TER
                  1
                         1
SO
     SEQUENCE
               11 AA; 1071 MW; C26BF418D050440D CRC64;
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                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 1.2e+05;
 Matches
            2; Conservative 0; Mismatches 0;
                                                      Indels
                                                                 0; Gaps
                                                                             0;
            1 AS 2
Qy
              11
            1 AS 2
RESULT 14
Q9L4F7
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    Q9L4F7
                                   PRT;
                                           11 AA.
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RP

SEQUENCE FROM N.A.

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AC
     Q9L4F7;
DT
     01-OCT-2000 (TrEMBLrel. 15, Created)
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DT
     Phosphatidylinositol-specific phospholipase C (PI-PLC)
DE
DΕ
     (Fragment).
     PLCA.
GN
     Bacillus cereus.
os
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OX
     NCBI TaxID=1396;
     [1]
RN
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=ATCC 14579 type strain;
     MEDLINE=20055637; PubMed=10589720;
RX
     Okstad O., Gominet M., Purnelle B., Rose M., Lereclus D., Kolsto A.B.;
RA
     "Sequence analysis of three Bacillus cereus loci under PIcR-regulated
RT
RT
     genes encoding degradative enzymes and enterotoxin.";
     Microbiology 145:3129-3138(1999).
RL
     EMBL; AJ243711; CAB69804.1; -.
DR
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1335 MW;
                                 4277A30E20572333 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
            2; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            3 KK 4
Qу
              11
            4 KK 5
Db
RESULT 15
P77404
     P77404
                 PRELIMINARY;
                                   PRT;
ID
AC
     P77404;
DT
     01-FEB-1997 (TrEMBLrel. 02, Created)
DT
     01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DT
DΕ
     DNA sequence downstream of the ECOPRRI HSD locus (Fragment).
GN
     HSDR.
OS
     Escherichia coli.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RX
     MEDLINE=97206151; PubMed=9157244;
RA
     Tyndall C., Lehnherr H., Sandmeier U., Kulik E., Bickle T.A.;
RT
     "The type IC hsd loci of the enterobacteria are flanked by DNA with
RT
     high homology to the phage P1 genome: implications for the evolution
RT
     and spread of DNA restriction systems.";
RL
     Mol. Microbiol. 23:729-736(1997).
DR
     EMBL; X98145; CAA66840.1; -.
DR
     EMBL; X98144; CAA66839.1; -.
FT
     NON TER
                   1
SQ
     SEQUENCE
                11 AA; 1259 MW; 714AB092A4072734 CRC64;
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Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                 0; Gaps
           10 KA 11
Qу
              11
           10 KA 11
Db
RESULT 16
Q9RQ60
ID
     Q9RQ60
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
     09R060;
AC
DТ
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DE
     Acetohydroxy acid synthase small subunit (Fragment).
GN
     ILVH.
OS
     Buchnera aphidicola.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Buchnera.
OX
     NCBI_TaxID=9;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=20022990; PubMed=10555290;
     Clark M.A., Moran N.A., Baumann P.;
RA
RT
     "Sequence evolution in bacterial endosymbionts having extreme base
RT
     compositions.";
     Mol. Biol. Evol. 16:1586-1598(1999).
RL
DR
     EMBL; AF129503; AAF13796.1; -.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1330 MW; 0E89EF1E2045B050 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                              0;
            6 KR 7
Qy
              Db
            2 KR 3
RESULT 17
P71228
ΙD
     P71228
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     P71228;
     01-FEB-1997 (TrEMBLrel. 02, Created)
DT
     01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE
     Nitrate/nitrite sensor transmitter (Fragment).
GN
     NARO.
OS
     Escherichia coli.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
RP
     SEQUENCE FROM N.A.
```

```
RC
     STRAIN=K-12;
     MEDLINE=92374842; PubMed=1508040;
RX
RA
     Chiang R.C., Cavicchioli R., Gunsalus R.P.;
RT
     "Identification and characterization of narQ, a second nitrate sensor
     for nitrate-dependent gene regulation in Escherichia coli.";
RT
RL
     Mol. Microbiol. 6:1913-1923(1992).
RN
     [2]
     SEQUENCE FROM N.A.
RP
     STRAIN=K-12;
RC
    MEDLINE=97113461; PubMed=8955321;
RX
     Cavicchioli R., Kolesnikow T., Chiang R.C., Gunsalus R.P.;
RA
     "Characterization of the aegA locus of Escherichia coli: control of
RT
     gene expression in response to anaerobiosis and nitrate.";
RT
     J. Bacteriol. 178:6968-6974(1996).
RL
     EMBL; L34011; AAB46943.1; -.
DR
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1200 MW; 52E1CFFCA2D77403 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.2e+05;
  Matches
            2; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
Qy
            1 AS 2
             Db
            9 AS 10
RESULT 18
Q93MI7
ID
     Q93MI7
                 PRELIMINARY;
                                   PRT;
AC
     Q93MI7;
DT
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     Adhesin (Fragment).
GN
     IHA.
OS
    Escherichia coli.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OX
    NCBI TaxID=562;
RN
    [1]
RP
    SEQUENCE FROM N.A.
RC
    STRAIN=CFT073;
RA
     Stell A.L.:
RL
     Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
    EMBL; AF401752; AAK94916.1; -.
DR
FT
    NON TER
                  11
                         11
               11 AA; 1203 MW; 8E2817ECBDD731B1 CRC64;
SO
     SEOUENCE
 Query Match
                          18.2%; Score 2; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.2e+05;
 Matches
            2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            1 AS 2
             -1.1
            7 AS 8
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```
RESULT 19
Q9RFZ2
ID
     Q9RFZ2
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
AC
     Q9RFZ2;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
DΤ
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DΕ
     Fructose biphosphate aldolase (Fragment).
GN
     Mycoplasma mycoides subsp. capri.
OS
     Bacteria; Firmicutes; Mollicutes; Mycoplasmataceae; Mycoplasma.
OC
OX
     NCBI TaxID=40477;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=PG3;
RX
     MEDLINE=20193983; PubMed=10727835;
     Thiaucourt F., Lorenzon S., David A., Breard A.;
RA
     "Phylogeny of the Mycoplasma mycoides cluster as shown by sequencing
RT
     of a putative membrane protein gene.";
RT
     Vet. Microbiol. 72:251-268(2000).
RL
     EMBL; AF162998; AAF15255.1; -.
DR
FT
     NON TER
                  11
                          11
                                  50B0881A3331FB57 CRC64;
SO
     SEQUENCE
                11 AA; 1371 MW;
  Query Match
                           18.2%;
                                  Score 2; DB 2;
                                                    Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.2e+05;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            5 PK 6
Qу
              \mathbf{I}
Db
            2 PK 3
RESULT 20
P95518
ID
     P95518
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     P95518;
     01-MAY-1997 (TrEMBLrel. 03, Created)
DT
DT
     01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     Ribosomal protein RpsA (Fragment).
GN
     RPSA.
OS
     Pasteurella haemolytica.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Pasteurellales;
OC
     Pasteurellaceae; Mannheimia.
OX
     NCBI TaxID=75985;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=PHL101;
RX
    MEDLINE=97164347; PubMed=9011038;
     Highlander S.K., Garza O., Brown B.J., Koby S., Oppenheim A.B.;
RA
     "Isolation and characterization of the integration host factor genes
RT
RT
     of Pasteurella haemolytica.";
RL
     FEMS Microbiol. Lett. 146:181-188(1997).
DR
     EMBL; U56139; AAC44845.1; -.
FT
    NON TER
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                          1
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SEQUENCE 11 AA; 1168 MW; 7A4BFD38D339CDDB CRC64;
SO
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                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
           10 KA 11
Qу
              7 KA 8
Db
RESULT 21
Q47345
ID
     Q47345
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
     047345;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     Leader peptide.
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=K12;
RA
     Faber F., van Giezen M., Van Gorcom R.F.M., Harder W.;
RT
     "Identification of two Escherichia coli K12 proteins which are induced
RT
     in response to pollutant stress.";
RL
     Submitted (APR-1996) to the EMBL/GenBank/DDBJ databases.
RN
RP
     SEQUENCE OF 2-11 FROM N.A.
RC
     STRAIN=K12;
RX
    MEDLINE=85134883; PubMed=6396419;
RA
     Hudson G.S., Davidson B.E.;
     "Nucleotide sequence and transcription of the phenylalanine and
RT
RT
     tyrosine operons of Escherichia coli K12.";
     J. Mol. Biol. 180:1023-1051(1984).
RL
     EMBL; Z70523; CAA94435.1; -.
DR
SO
     SEQUENCE 11 AA; 1402 MW; 87AB199204141775 CRC64;
 Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
             2; Conservative
 Matches
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0:
            6 KR 7
Qу
              | | |
Db
           10 KR 11
RESULT 22
Q9AIZ8
ID
     Q9AIZ8
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q9AIZ8;
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
```

```
Tryptophanyl-tRNA synthetase (Fragment).
     TRPS.
GN
OS
     Carsonella ruddii.
     Bacteria; Proteobacteria; Gammaproteobacteria; Candidatus Carsonella.
OC
     NCBI TaxID=114186;
OX
RN
     [1]
RΡ
     SEQUENCE FROM N.A.
RX
     MEDLINE=20336438; PubMed=10877784;
     Thao M.L., Moran N.A., Abbot P., Brennan E.B., Burckhardt D.H.,
RA
     Baumann P.;
RA
     "Cospeciation of psyllids and their primary prokaryotic
RT
RT
     endosymbionts.";
     Appl. Environ. Microbiol. 66:2898-2905(2000).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
     MEDLINE=21125546; PubMed=11222582;
RX
     Clark M.A., Baumann L., Thao M.L., Moran N.A., Baumann P.;
RA
RT
     "Degenerative Minimalism in the Genome of a Psyllid Endosymbiont.";
     J. Bacteriol. 183:1853-1861(2001).
RL
DR
     EMBL; AF211126; AAK15376.1; -.
     GO; GO:0004812; F:tRNA ligase activity; IEA.
DR
KW
     Aminoacyl-tRNA synthetase.
FT
     NON TER
                   1
     SEQUENCE
                11 AA; 1384 MW; 07A038324339C724 CRC64;
SO
  Query Match
                          18.2%;
                                   Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                               0;
                                                                       Gaps
            8 NI 9
Qу
              \mathbf{H}
Db
            1 NI 2
RESULT 23
Q44090
ΙD
     Q44090
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q44090;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DΕ
     Hypothetical export segment (Fragment).
OS
    Acholeplasma laidlawii.
OC
     Bacteria; Firmicutes; Mollicutes; Acholeplasmatales;
OC
     Acholeplasmataceae; Acholeplasma.
OX
     NCBI TaxID=2148;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=A-EF22;
RA
     Boyer M.J., Jarhede T.K., Tegman V., Wieslander A.;
RT
     "Sequence regions from Acholeplasma laidlawii which restore export of
RT
     beta-lactamase in Escherichia coli.";
RL
     Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; Z22875; CAA80495.1; -.
DR
     PIR; S33519; S33519.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1234 MW; 5C9D2AE8A682C337 CRC64;
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DE

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Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            3 KK 4
Qу
              11
            2 KK 3
Db
RESULT 24
044237
     044237
ID
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     044237:
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     Glutamine synthetase (Fragment).
GN
     GLNA.
OS
     Anabaena sp. (strain PCC 7120).
OC
     Bacteria; Cyanobacteria; Nostocales; Nostocaceae; Nostoc.
OX
     NCBI TaxID=103690;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=PCC 7120;
RA
     Warner L.E., Ligon P.J., Stahel A.W., Curtis S.E.;
RT
     "The apcF gene of Anabaena sp. strain PCC 7120 is regulated by
RT
     nitrogen and the apcF and glnA promoters overlap.";
RL
     Submitted (MAY-1995) to the EMBL/GenBank/DDBJ databases.
RN
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=PCC 7120;
RA
     Scappino L.A.;
RL
     Submitted (FEB-1995) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; U21853; AAA65652.1; -.
FT
     NON TER
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1316 MW; 2000580E32CB06C7 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                                0; Mismatches
                                                                              0;
                                                  0; Indels
                                                                  0; Gaps
            6 KR 7
Qy
              41
Db
            9 KR 10
RESULT 25
Q9R872
ID
     Q9R872
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q9R872;
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Dihydrofolate reductase (Fragment).
GN
     DFR1.
OS
    Escherichia coli.
```

18.2%; Score 2; DB 2; Length 11;

Query Match

```
OG
     Plasmid r483.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     TRANSPOSON=Tn7;
RA
     Hansson K., Sundstrom L., Pelletier A., Roy P.H.;
     "Sequence and function of the second type of integron in Tn7.";
RT
     Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
RL
RN
     SEQUENCE FROM N.A.
RP
     TRANSPOSON=Tn7:
RC
     MEDLINE=82220022; PubMed=6283361;
RX
RA
     Lichtenstein C., Brenner S.;
     "Unique insertion site of Tn7 in the E. coli chromosome.";
RT
     Nature 297:601-603(1982).
RL
RN
     [3]
RP
     SEQUENCE FROM N.A.
RC
     TRANSPOSON=Tn7;
RX
     MEDLINE=83290694; PubMed=6411680;
RA
     Simonsen C.C., Chen E.Y., Levinson A.D.;
RT
     "Identification of the type I trimethoprim-resistant dihydrofolate
RT
     reductase specified by the Escherichia coli R-plasmid R483: Comparison
RT
     with procaryotic and eucaryotic dihydrofolate reductases.";
RL
     J. Bacteriol. 155:1001-1008(1983).
RN
     [4]
     SEQUENCE FROM N.A.
RP
     TRANSPOSON=Tn7;
RC
RX
     MEDLINE=83272957; PubMed=6308574;
     Fling M.E., Richards C.;
RA
RT
     "The nucleotide sequence of the trimethoprim-resistant dihydrofolate
RT
     reductase gene harbored by Tn7.";
     Nucleic Acids Res. 11:5147-5158(1983).
RL
DR
     EMBL; AJ001816; CAA05032.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
KW
     Plasmid.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1221 MW; 92014864C2C69735 CRC64;
  Query Match
                          18.2%; Score 2; DB 2;
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0:
Qy
            2 SK 3
              11
Db
           10 SK 11
RESULT 26
Q9R446
ID
     Q9R446
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9R446;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DE
     Carbamoyl-phosphate synthase subunit A (Fragment).
```

```
CARA.
GN
     Neisseria gonorrhoeae.
OS
     Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
OC
OC
     Neisseriaceae; Neisseria.
     NCBI_TaxID=485;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=MS11, and FA1090;
RX
     MEDLINE=95291461; PubMed=7773412;
     Lawson F.S., Billowes F.M., Dillon J.A.;
RA
     "Organization of carbamoyl-phosphate synthase genes in Neisseria
RT
     gonorrhoeae includes a large, variable intergenic sequence which is
RT
RT
     also present in other Neisseria species.";
     Microbiology 141:0-0(0).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
     STRAIN=MS11, and FA1090;
RC
     Brinkman F.S.L., Francis F.M., Dillon J.R.;
RA
RT
     "Complexity of the variable sequence between the carbamoyl-phosphate
     synthase genes of Neisseria species.";
RT
RL
     Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AF029363; AAC78453.1; -.
DR
     EMBL; AF029362; AAC78452.1; -.
FT
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                          1
                  1
     SEQUENCE
              11 AA; 1178 MW; 0C07A8E3DDD33694 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
                                0; Mismatches
  Matches
           2; Conservative
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
           10 KA 11
Qу
              11
Db
            6 KA 7
RESULT 27
Q8GMU3
ID
     Q8GMU3
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q8GMU3;
DT
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Putative catalase isozyme (Fragment).
GN
     KATA.
OS
     Acinetobacter lwoffii.
     Plasmid pKLH202.
OG
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
     Moraxellaceae; Acinetobacter.
OX
     NCBI TaxID=28090;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=TC108;
RA
     Kholodii G.Y., Yurieva O.V., Mindlin S.Z., Gorlenko Z.M.,
RA
     Nikiforov V.G.;
RT
     "pKLH2-like aberrant transposons and possible mechanisms of their
RT
     dissemination.";
RL
     Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
```

```
EMBL; AJ250245; CAC80800.1; -.
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
     Plasmid.
KW
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1233 MW; 81A15757B333276A CRC64;
SQ
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
            2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                   0; Gaps
                                                                               0;
            5 PK 6
Qу
              -11
            5 PK 6
Db
RESULT 28
Q8GL24
ID
     Q8GL24
                 PRELIMINARY;
                                  PRT:
                                            11 AA.
     Q8GL24;
AC
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DT
DE
     PF-50 protein (Fragment).
GN
     PF-50.
OS
     Borrelia burgdorferi (Lyme disease spirochete).
     Plasmid group cp32-6.
OG
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
     NCBI TaxID=139;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=Sh-2-82;
RC
     Stevenson B., Miller J.C.;
RA
     "Comparative analyses of Borrelia burgdorferi erp genes and their cp32
RT
RT
     prophages: conservation amidst diversity.";
     Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AY142093; AAN17876.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
KW
     Plasmid.
FT
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                          1
SO
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                11 AA; 1366 MW; 4E441D5330504373 CRC64;
                          18.2%; Score 2; DB 2; Length 11;
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Qу
              II
Db
            3 IK 4
RESULT 29
Q8GL19
ID
     Q8GL19
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AC
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DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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DR

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PF-50 protein (Fragment).
DE
     PF-50.
GN
     Borrelia burgdorferi (Lyme disease spirochete).
OS
     Plasmid group cp32-11.
OG
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
OX
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RN
     [1]
RP
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RC
     STRAIN=Sh-2-82;
     Stevenson B., Miller J.C.;
RA
     "Comparative analyses of Borrelia burgdorferi erp genes and their cp32
RT
     prophages: conservation amidst diversity.";
RT
     Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RL
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DR
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
     Plasmid.
KW
FT
     NON TER
                   1
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SO
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  Best Local Similarity
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             2; Conservative
                                 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                              0;
                                                    0;
            9 IK 10
Qу
              +
Db
            3 IK 4
RESULT 30
Q7X566
ID
     Q7X566
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
     Q7X566;
AC
DT
     01-OCT-2003 (TrEMBLrel. 25, Created)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE
     Hypothetical protein (Fragment).
OS
     Thermus thermophilus.
OC
     Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC
     Thermus.
OX
     NCBI TaxID=274;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Miyazaki T., Miyazaki J., Nishiyama M., Yamane H.;
RT
     "Characterization of a LysN, the 4th enzyme in lysine biosynthesis, in
     an extremely thermophilic bacterium, Thermus thermophilus HB27.";
RT
     Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AB097117; BAC76940.1; -.
KW
     Hypothetical protein.
FT
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                         11
SQ
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                11 AA; 1073 MW;
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                          100.0%; Pred. No. 1.2e+05;
 Matches
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Qу
            5 PK 6
              11
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RESULT 31
060761
ΙD
     060761
                 PRELIMINARY;
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                                            11 AA.
     060761;
AC
DT
     01-AUG-1998 (TrEMBLrel. 07, Created)
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     NPT-1 protein (Fragment).
DΕ
GN
     NPT-1.
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=98207718; PubMed=9545579;
RX
RA
     Taketani Y., Miyamoto K., Chikamori M., Tanaka K., Yamamoto H.,
RA
     Tatsumi S., Morita K., Takeda E.;
RT
     "Characterization of the 5' flanking region of the human NPT-1
RT
     Na+/phosphate cotransporter gene.";
RL
     Biochim. Biophys. Acta 1396:267-272(1998).
DR
     EMBL; D83236; BAA25645.1; -.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1358 MW; 884E2D4E6734044A CRC64;
SQ
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  Best Local Similarity
                          100.0%;
                                  Pred. No. 1.2e+05;
                                 0; Mismatches
  Matches
             2; Conservative
                                                   0;
                                                       Indels
                                                                               0;
                                                                  0; Gaps
            3 KK 4
Qу
              Db
           10 KK 11
RESULT 32
075811
ID
     075811
                 PRELIMINARY:
                                   PRT:
                                            11 AA.
AC
     075811;
DT
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DE
     ErbB-3 R2 (Fragment).
GN
     C-ERBB-3.
OS
    Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     TISSUE=Ovarian carcinoma;
RX
    MEDLINE=98345147; PubMed=9681822;
RA
     Lee H., Maihle N.J.;
RT
     "Isolation and characterization of four alternate c-erbB3 transcripts
RT
     expressed in ovarian carcinoma-derived cell lines and normal human
```

```
tissues.";
RT
     Oncogene 16:3243-3252(1998).
RL
     EMBL; U88358; AAC39858.1; -.
DR
     NON TER
FT
                    1
                           1
     SEQUENCE
                        1017 MW; 21B236366EB72878 CRC64;
SO
                 11 AA;
  Query Match
                           18.2%; Score 2; DB 4; Length 11;
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
             2; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                         Gaps
                                                                                 0;
            5 PK 6
Qу
               \perp
Db
            8 PK 9
RESULT 33
O9H4H5
ΙD
     Q9H4H5
                  PRELIMINARY;
                                     PRT:
                                             11 AA.
AC
     Q9H4H5;
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2002 (TrEMBLrel. 20, Last sequence update) 01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DT
DT
DE
     DJ661I20.2 (Novel helicase C-terminal domain and SNF2 N-terminal
DE
     domains containing protein) (Fragment).
GN
     DJ620E11.1.
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Skuce C.;
RA
     Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
RL
DR .
     EMBL; AL031669; CAC17164.2; -.
     NON TER
FT
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                           1
FT
     NON TER
                   11
                          11
     SEQUENCE
SQ
                 11 AA; 1420 MW; 5EB2C32A3326D053 CRC64;
  Query Match
                           18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.2e+05;
  Matches
            2; Conservative
                                 0; Mismatches
                                                     0; Indels
                                                                    0; Gaps 0;
            3 KK 4
Qy
              11
            7 KK 8
Db
RESULT 34
Q15997
ID
     Q15997
                  PRELIMINARY;
                                     PRT;
                                             11 AA.
AC
     015997;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     RARA protein (Fragment).
GN
     RARA.
OS
     Homo sapiens (Human).
```

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
     SEQUENCE FROM N.A.
RΡ
     MEDLINE=93222087; PubMed=7682097;
RX
     Dong S., Geng J.P., Tong J.H., Wu Y., Cai J.R., Sun G.L., Chen S.R.,
RA
     Wang Z.Y., Larsen C.J., Berger R., et al;
RA
     "Breakpoint clusters of the PML gene in acute promyelocytic leukemia:
RT
     primary structure of the reciprocal products of the PML-RARA gene in a
RΤ
RT
     patient with t(15;17).";
RL
     Genes Chromosomes Cancer 6:133-139(1993).
     EMBL; S57794; AAD13888.1; -.
DR
     PIR; I54081; I54081.
DR
     NON TER
FT
                   1
     SEQUENCE
SO
                11 AA; 1277 MW;
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  Best Local Similarity
             2; Conservative
                                0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                              0;
                                                   0;
            6 KR 7
Qу
              11
Db
           10 KR 11
RESULT 35
Q9UCP5
     O9UCP5
                                   PRT;
ID
                 PRELIMINARY;
                                           11 AA.
     Q9UCP5;
AC
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Aggrecan core protein (Fragment).
DE
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
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RN
     [1]
RP
     SEQUENCE.
     MEDLINE=92235266; PubMed=1569188;
RX
     Sandy J.D., Flannery C.R., Neame P.J., Lohmander L.S.;
RA
     J. Clin. Invest. 89:1512-1516(1992).
RL
     GO; GO:0005201; F:extracellular matrix structural constituent; TAS.
DR
DR
     GO; GO:0006508; P:proteolysis and peptidolysis; NAS.
DR
     GO; GO:0001501; P:skeletal development; NAS.
FT
     NON TER
                   1
                          1
     NON TER
                  11
                         11
FT
     SEQUENCE
SQ
                11 AA; 1149 MW;
                                  8FBFE8DFE72042D5 CRC64;
                          18.2%;
                                  Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
  Matches
             2; Conservative
                              0; Mismatches 0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            4 KP 5
Qу
              \mathbf{I}
Db
           10 KP 11
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RESULT 36
Q9UBM2
ΙD
     Q9UBM2
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
     Q9UBM2;
АC
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     ETV6 protein (Fragment).
     ETV6.
GN
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI_TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RA
     Montgomery K.T., Lau S.T., Renault B., Yoon S.J., Baens M.,
     Marynen P., Kucherlapati R.;
RA
RT
     "Towards the Complete Sequence of Chromosome 12.";
RL
     Submitted (DEC-1996) to the EMBL/GenBank/DDBJ databases.
RN
     [2]
RP
     SEQUENCE FROM N.A.
     Baens M., Peeters P., Guo C., Aerssens J., Marynen P.;
RA
RL
     Submitted (JAN-1996) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; U81830; AAB39862.1; -.
     EMBL; U45432; AAB17016.1; -.
DR
     NON TER
FT
                 11
                         11
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SQ
                11 AA; 1194 MW; 8267C587A6DDC771 CRC64;
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  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                                0; Mismatches
                                                    0;
                                                       Indels
                                                                   0; Gaps
                                                                               0;
            9 IK 10
Qу
              \perp
           10 IK 11
Db
RESULT 37
Q9H3V7
ID
     Q9H3V7
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     09H3V7:
DΤ
     01-MAR-2001 (TrEMBLrel. 16, Created)
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Aquaporin-4 (Fragment).
GN
     AQP4.
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
ΟX
     NCBI TaxID=9606;
RN
     [1]
RΡ
     SEQUENCE FROM N.A.
RX
     MEDLINE=97008105; PubMed=8855281;
RA
     Lu M., Lee M.D., Smith B.L., Jung J.S., Agre P., Verdijk M.A.J.,
RA
     Merkx G., Rijss J.P.L., Deen P.M.T.;
```

```
"The human AQP4 gene: definition of the locus encoding two water
RT
     channel polypeptides in brain.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 93:10908-10912(1996).
RL
     EMBL; U63613; AAG17964.1; -.
DR
     GO; GO:0005372; F:water transporter activity; NAS.
DR
DR
     GO; GO:0006833; P:water transport; NAS.
KW
     Porin.
FT
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                          1
     NON TER
FT
                  11
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                11 AA; 1233 MW; 379D9CA311AEB737 CRC64;
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            8 NI 9
Qу
              Ш
           10 NI 11
Dh
RESULT 38
08NI03
     Q8NI03
ID
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q8NI03;
DТ
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     25 hydroxyvitamin d3 1-alpha hydroxylase (Fragment).
DE
     Homo sapiens (Human).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Ebert R., Schneider D., Jovanovic M., Adamski J., Jakob F.;
RA
RL
     Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AF500480; AAM21669.1; -.
FT
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SQ
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                11 AA; 1298 MW; 82C14E84CB533731 CRC64;
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Qy
              II
Db
            8 AS 9
RESULT 39
Q26092
ΙD
     Q26092
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q26092;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DΕ
     Sea StAR histone H2B gene 5'region (Fragment).
```

```
OS
     Pisaster ochraceus (Sea star).
     Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Asterozoa;
OC
     Asteroidea; Forcipulatacea; Forcipulatida; Asteriidae; Pisaster.
     NCBI TaxID=7612;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     TISSUE=Sperm;
     Howell A.M., Cool D., Hewitt J., Ydenberg B., Smith M.J., Honda B.M.;
RA
     "Organization and Unusual Expression of Histone Genes in the Sea Star
RT
     Pisaster ochraceus.";
RT
     J. Mol. Evol. 25:29-36(1987).
RL
     EMBL; X05619; CAA29106.1; -.
DR
     NON TER
FT
                 11
                        11
     SEOUENCE
                11 AA; 1128 MW; 5173974A3865BDD3 CRC64;
SO
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  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
            2; Conservative
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                                                                0; Gaps
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Qу
Db
            3 PK 4
RESULT 40
Q9NL65
ID
     09NL65
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     Q9NL65;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
DT
     01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
DE
     ASABF-delta (Fragment).
GN
    ASABF-DELTA.
OS
     Ascaris suum (Pig roundworm) (Ascaris lumbricoides).
     Eukaryota; Metazoa; Nematoda; Chromadorea; Ascaridida; Ascaridoidea;
OC
     Ascarididae; Ascaris.
OX
     NCBI TaxID=6253;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Kato Y.;
RT
     "Ascaris suum asabf-delta gene, exon 2.";
RL
     Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AB029815; BAA89496.1; -.
FT
     NON TER
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                          1
FT
    NON TER
                  11
                       . 11
     SEQUENCE
               11 AA; 1187 MW; 8BADD0CD1EAB5861 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
 Matches
            2; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
Qу
            6 KR 7
Db
            9 KR 10
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```
O9TWX6
ΙD
    Q9TWX6
                 PRELIMINARY;
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                                           11 AA.
AC
     09TWX6;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Juvenile hormone binding protein, JHBP=12.5 kDa CNBR peptide
DΕ
DE
     (Fragment).
os
    Manduca sexta (Tobacco hawkmoth) (Tobacco hornworm).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Sphingiodea;
OC
OC
     Sphingidae; Sphinginae; Manduca.
     NCBI TaxID=7130;
OX
RN
     [1]
     SEQUENCE.
RP
RX
    MEDLINE=92134256; PubMed=1734862;
    Touhara K., Prestwich G.D.;
RA
     "Binding site mapping of a photoaffinity-labeled juvenile hormone
RT
    binding protein.";
RT
     Biochem. Biophys. Res. Commun. 182:466-473(1992).
RL
    NON TER
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FT
                  1
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1071 MW; D232A98E705045BD CRC64;
SQ
 Query Match
                          18.2%; Score 2; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
 Matches
            2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AS 2
Qу
              Db
            4 AS 5
RESULT 42
Q8MPQ3
ID
     Q8MPQ3
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                                   PRT:
                                           11 AA.
AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DT
DE
    Hypothetical protein Y23H5A.8b.
GN
    Y23H5A.8.
OS
    Caenorhabditis elegans.
OC
    Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
    Rhabditidae; Peloderinae; Caenorhabditis.
OC
OX
    NCBI TaxID=6239;
RN
     [1]
RP
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     STRAIN=Bristol N2;
RC
RX
    MEDLINE=99069613; PubMed=9851916;
RA
    Waterston R.;
RT
     "Genome sequence of the nematode C. elegans: a platform for
     investigating biology. The C. elegans Sequencing Consortium.";
RT
RL
     Science 282:2012-2018(1998).
RN
RP
    SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
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RA
     Dempsey S., Le T.T.;
     "The sequence of C. elegans cosmid Y23H5A.";
RT
RL
     Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.
RN
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RP
     STRAIN=Bristol N2;
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RA
     Waterston R.;
     Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
RL
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DR
DR
    WormPep; Y23H5A.8b; CE31097.
     Hypothetical protein.
KW
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Qу
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Db
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
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OS
     Trypanosoma cruzi.
OC
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OX
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RN
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RA
RA
     Campbell D.A.;
RT
     "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
     Int. J. Parasitol. 33:269-279(2003).
RL
DR
    EMBL; AF545075; AAP21903.1; -.
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
     Trypanosoma cruzi.
OS
     Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
OC
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OX
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     Sturm N.R., Vargas N.S., Westenberger S.J., Zingales B.,
RA
     Campbell D.A.;
     "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
RT
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RL
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Qу
              \perp
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Db
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DT
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DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE
     Calcyclin-associated protein, CAP50=CA2+/phospholipid-binding protein
DE
     L-13 fragment (Fragment).
OS
     Oryctolagus cuniculus (Rabbit).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
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RX
     MEDLINE=92250478; PubMed=1533622;
     Tokumitsu H., Mizutani A., Minami H., Kobayashi R., Hidaka H.;
RA
RT
     "A calcyclin-associated protein is a newly identified member of the
RT
     Ca2+/phospholipid-binding proteins, annexin family.";
     J. Biol. Chem. 267:8919-8924(1992).
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9 IK 10
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Db
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     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Alanine glyoxylate aminotransferase (EC 2.6.1.44) (Fragment).
DE
GN
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OS
     Gorilla gorilla (gorilla).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Gorilla.
OX
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RN
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RX
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RA
     Holbrook J.D., Birdsey G.M., Yang Z., Bruford M.W., Danpure C.J.;
RT
     "Molecular adaptation of alanine Glyoxylate aminotransferase targeting
RT
     in primates.";
     Mol. Biol. Evol. 17:387-400(2000).
RL
DR
     EMBL; AJ237887; CAB56788.1; -.
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KW
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Qу
Db
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     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
    MHC class II B locus 1 (Fragment).
OS
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OC
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OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
    Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OX
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RN

RP

[1]

SEQUENCE FROM N.A.

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     Figueroa F., Sultmann H., Klein J.;
RA
RT
     "Linkage relationships and haplotype polymorphism among cichlid mhc
     class II B loci.";
RT
RL
     Genetics 149:1527-1537(1998).
DR
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Qу
              II
Db
            8 KP 9
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     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 2 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
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OC
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OC
     Cichlidae; Oreochromis.
OX.
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RA
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RT
     "Linkage relationships and haplotype polymorphism among cichlid mhc
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RL
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Qу
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Db
            8 KR 9
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     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DΕ
     MHC class II B locus 2 (Fragment).
OS
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OC
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OC
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OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
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RA
     Figueroa F., Sultmann H., Klein J.;
RT
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     Genetics 149:1527-1537(1998).
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Db
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     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
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DE
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     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
OC
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     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
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OX
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RA
RT
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RT
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RL
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DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
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DE
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OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
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OC
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
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RA
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RT
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RL
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                                                                     Gaps
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Qy
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            8 KP 9
Db
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EMBL; AF049982; AAC41321.1; -.

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MHC class II B locus 2 (Fragment).
DE
OS
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OC
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OC
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OC
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     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
RT
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RL
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Db
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DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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OS
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OC
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OC
OC
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RA
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RA
RT
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RT
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RL
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DR
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              \mathbf{I}
Db
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DT
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     MHC class Ib antigen (Fragment).
DE
     HLA-F.
GN
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
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RP
     SEQUENCE FROM N.A.
RA
     Liu Y., He X., Xu L., Zeng Y.;
RT
     "Partial genomic sequence of HLA-F gene.";
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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DΕ
     Ribulose-1,5-bisphosphate carboxylase/oxygenase large subunit
DE
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GN
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OS
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OG
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OC
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RN
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RP
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     STRAIN=75;
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     Teasdale B.W., West A., Taylor H., Klein A.S.;
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"A Simple Restriction Fragment Length Polymorphism (RFLP) Assay To
RT
     Discriminate Common Porphyra (Rhodophyta) Taxa From The Northwest
RT
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KW
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                                                                               0;
            8 NI 9
Qу
              11
Db
           10 NI 11
RESULT 56
O8MEL7
ID
     Q8MEL7
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                                    PRT;
                                            11 AA.
AC
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DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
     Ribosomal protein 16 (Fragment).
GN
     RPL16.
OS
     Sida hookeriana.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Sida.
OX
     NCBI TaxID=108446;
RN
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RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
RT
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RL
     Syst. Bot. 27:333-350(2002).
DR
     EMBL; AF384624; AAM50396.1; -.
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
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FT
     NON TER
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Qу
            6 KR 7
              11
Db
            1 KR 2
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RT

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09G5Y0
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     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Cytochrome c oxidase subunit I (Fragment).
GN
     COI.
OS
     Pseudotrapelus sinaitus.
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Agaminae;
OC
     Pseudotrapelus.
     NCBI TaxID=118229;
OX
RN
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RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=22114082; PubMed=12118408;
     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
RT
     structural features illustrated with acrodont lizards.";
RL
     Syst. Biol. 49:257-277(2000).
RN
     [2]
     SEQUENCE FROM N.A.
RP
RX
     MEDLINE=22114081; PubMed=12118407;
RA
     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RT
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RL
     Syst. Biol. 49:233-256(2000).
     EMBL; AF128507; AAG00758.1; -.
DR
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     GO; GO:0005739; C:mitochondrion; IEA.
KW
     Mitochondrion.
     NON TER ·
FT
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                                  Score 2; DB 8; Length 11;
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             2; Conservative
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                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
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Qу
              Db
            2 SK 3
RESULT 58
O8MEM2
ID
     Q8MEM2
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     O8MEM2:
     01-OCT-2002 (TrEMBLrel. 22, Created)
DТ
DТ
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Ribosomal protein 16 (Fragment).
GN
     RPL16.
OS
     Lagunaria patersonia.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
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OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Lagunaria.
     NCBI TaxID=183274;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
ŔТ
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384616; AAM50388.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
     Chloroplast.
FT
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     NON TER
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FT
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SQ
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                                   7227C351D32409D4 CRC64;
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                                                                        Gaps
 Matches
             2; Conservative
                                  0; Mismatches
                                                                    0;
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            6 KR 7
Qу
              11
            1 KR 2
Db
RESULT 59
Q8MES5
                 PRELIMINARY;
                                    PRT;
                                             11 AA.
     Q8MES5
ID
AC
     Q8MES5;
     01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
OS
     Abelmoschus manihot.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Abelmoschus.
OC
OX
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RN
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     SEQUENCE FROM N.A.
RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
DR
     EMBL; AF384561; AAM50399.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
     Chloroplast.
FT
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                           1
     NON TER
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FT
                          11
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                                   7227C351D32409D4 CRC64;
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                                   Score 2; DB 8; Length 11;
                           100.0%; Pred. No. 1.2e+05;
  Best Local Similarity
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  Matches
             2; Conservative
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            6 KR 7
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Qу

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Db 1 KR 2
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RESULT 60
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                                    PRT:
                                            11 AA.
     Q8MEP0
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AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
     RPL16.
GN
OS
     Hibiscus peralbus.
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OC
OX
     NCBI TaxID=183256;
RN
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RP
     SEQUENCE FROM N.A.
RA
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
RL
     Syst. Bot. 27:333-350(2002).
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     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
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FT
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     NON TER
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FT
                                  7227C351D32409D4 CRC64;
SQ
     SEQUENCE
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                                   Score 2; DB 8; Length 11;
  Query Match
  Best Local Similarity 100.0%;
                                   Pred. No. 1.2e+05;
                                                                               0;
 Matches
             2; Conservative
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                                                     0; Indels
                                                                       Gaps
            6 KR 7
Qу
              II
            1 KR 2
Db
RESULT 61
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                                    PRT:
                                            11 AA.
ID
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AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Ribosomal protein 16 (Fragment).
GN
     RPL16.
OS
     Dombeya tiliacea.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
     eurosids II; Malvales; Malvaceae; Dombeyoideae; Dombeya.
OC
OX
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RN
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RP
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RA
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
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FT
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FT
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                         11
SQ
     SEQUENCE
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                        1424 MW; 7227C351D32AE9D4 CRC64;
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                                                    Length 11;
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Qу
              11
            1 KR 2
Db
RESULT 62
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     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     NdhE protein (Fragment).
DE
OS
     Nicotiana tabacum (Common tobacco).
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
     lamiids; Solanales; Solanaceae; Nicotiana.
OC
OX
     NCBI TaxID=4097;
RN
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RP
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RC
     STRAIN=Bright yellow 4; TISSUE=Leaf;
RX
     MEDLINE=88210537; PubMed=3329576;
     Hayashida N., Matsubayashi T., Shinozaki K., Sugiura M., Inoue K.,
RA
RA
     Hiyama T.;
     "The gene for the 9kd polypeptide, a possible apoprotein for the iron-
RT
     sulfur centers A and B of the photosystem I complex in tobacco
RT
RT
     chloroplastDNA.";
RL
     Curr. Genet. 12:247-250(1987).
DR
     EMBL; X05881; CAA29303.1; -.
DR
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     Chloroplast.
KW
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  Matches
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                                                                       Gaps
            9 IK 10
Qy
              \perp
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RESULT 63
08MES1
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ID
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AC
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DT
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     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
DE
     Ribosomal protein 16 (Fragment).
GN
     RPL16.
OS
     Alyogyne pinoniana.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Alyogyne.
OX
     NCBI_TaxID=183226;
RN
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RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
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     GO; GO:0009507; C:chloroplast; IEA.
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FT
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Qy
              \mathbf{I}
Db
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DТ
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
     Ribosomal protein 16 (Fragment).
GN
     RPL16.
OS
     Hibiscus normanii.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OC
OX
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RN
     [1]
RP
     SEQUENCE FROM N.A.
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Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
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RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
     Syst. Bot. 27:333-350(2002).
RL
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     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
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     NON TER
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FT
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SQ
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Qу
              \mathbf{I}
Db
            1 KR 2
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ID
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AC
     Q8MEQ7;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
     Hibiscus drummondii.
OS
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OX
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RN
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RP
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     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
DR.
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     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
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FT
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     NON TER
FT
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                                  7227C351D32409D4 CRC64;
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                                  Score 2; DB 8; Length 11;
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            6 KR 7
Qу
              Db
            1 KR 2
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RESULT 66
Q8MEL9
ΙD
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AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DΕ
     Ribosomal protein 16 (Fragment).
     RPL16.
GN
OS
     Pavonia hastata.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Pavonia.
OC
     NCBI TaxID=183278;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RA
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384622; AAM50394.1; -.
DR
DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
     Chloroplast.
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1470 MW;
                                  7227C351D32409D4 CRC64;
                          18.2%; Score 2; DB 8; Length 11;
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  Best Local Similarity
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             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                   0; Gaps
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Qу
            6 KR 7
              | \cdot |
Db
            1 KR 2
RESULT 67
Q8MER0
ID
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                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     O8MERO;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
     Ribosomal protein 16 (Fragment).
     RPL16.
GN
OS
     Hibiscus coatesii.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OX
     NCBI TaxID=183236;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
RT
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
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EMBL; AF384578; AAM50416.1; -.
DR
DR
     GO; GO:0009507; C:chloroplast; IEA.
     Chloroplast.
KW
     NON TER
FT
                   1
                           1
     NON TER
FT
                  11
                          11
     SEQUENCE
                        1470 MW;
                                  7227C351D32409D4 CRC64;
SQ
                11 AA;
                           18.2%; Score 2; DB 8;
                                                    Length 11;
  Ouerv Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                       Gaps
                                                                               0;
            6 KR 7
Qу
              11
            1 KR 2
Db
RESULT 68
Q8MES3
ΙD
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                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q8MES3;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
     Alyogyne cravenii.
OS
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Alyogyne.
OX
     NCBI TaxID=183223;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RA
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RT
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RL
     Syst. Bot. 27:333-350(2002).
DR
     EMBL; AF384563; AAM50401.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
     Chloroplast.
KW
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
                11 AA; 1470 MW;
                                  7227C351D32409D4 CRC64;
SO
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                           18.2%;
                                  Score 2; DB 8; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
  Matches
             2;
                Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                   0;
                                                                       Gaps
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Qy
            6 KR 7
              \mathbf{I}
Db
            1 KR 2
RESULT 69
Q8MEP5
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q8MEP5
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Syst. Bot. 27:333-350(2002).

RL

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AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Ribosomal protein 16 (Fragment).
     RPL16.
GN
OS
     Hibiscus microchlaenus.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OX
     NCBI TaxID=183251;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
RT
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
DR
     EMBL; AF384593; AAM50365.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
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     NON TER
FT
                    1
                            1
     NON TER
FT
                   11
                          11
     SEQUENCE
SQ
                 11 AA; 1470 MW;
                                   7227C351D32409D4 CRC64;
  Query Match
                           18.2%;
                                    Score 2; DB 8;
                                                      Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.2e+05;
             2; Conservative
                                   0; Mismatches
                                                      0; Indels
                                                                     0; Gaps
                                                                                  0;
            6 KR 7
Qу
               11
Db
            1 KR 2
RESULT 70
Q8MER1
ID
     Q8MER1
                  PRELIMINARY;
                                     PRT:
                                              11 AA.
AC
     Q8MER1;
     01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DT
DT
ĎΕ
     Ribosomal protein 16 (Fragment).
GN
     RPL16.
OS
     Hibiscus calyphyllus.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OC
OX
     NCBI TaxID=183235;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
RL
     Syst. Bot. 27:333-350(2002).
DR
     EMBL; AF384577; AAM50415.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
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Chloroplast.
KW
     NON TER
FT
                   1
                          1
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA;
                        1470 MW;
                                  7227C351D32409D4 CRC64;
SQ
  Query Match
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  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
 Matches
             2; Conservative
                                 0; Mismatches
                                                        Indels
                                                                              0;
                                                   0;
                                                                      Gaps
            6 KR 7
Qy
              11
            1 KR 2
Db
RESULT 71
Q8SKP8
ID
     O8SKP8
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     Q8SKP8;
DT
     01-JUN-2002 (TrEMBLrel. 21, Created)
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
OS
     Ctenophorus caudicinctus (Ring-tailed dragon).
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Amphibolurinae;
OC
     Ctenophorus.
    NCBI TaxID=180905;
XO
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
    MEDLINE=21623804; PubMed=11754013;
    Melville J., Schulte J.A. II, Larson A.;
RA
RT
     "A molecular phylogenetic study of ecological diversification in the
    Australian lizard genus Ctenophorus.";
RT
     J. Exp. Zool. 291:339-353(2001).
RL
     EMBL; AF375623; AAL78791.1; -.
DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
KW
    Mitochondrion.
FT
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                         11
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SQ
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                                                                              0;
 Matches
                                                                  0;
                                                                      Gaps
            6 KR 7
Qу
              11
Db
            5 KR 6
RESULT 72
Q8MER7
ID
     Q8MER7
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     Q8MER7;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
```

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01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DΕ
GN
     RPL16.
     Fioria vitifolia.
OS
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Fioria.
OC
OX
     NCBI TaxID=183231;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384570; AAM50408.1; -.
DR
DR
     GO; GO:0009507; C:chloroplast; IEA.
     Chloroplast.
KW
FT
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                          1
                   1
FT
     NON TER
                  11
                         11
     SEQUENCE
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                       1470 MW;
                                  7227C351D32409D4 CRC64;
SO
                          18.2%; Score 2; DB 8; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+05;
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Qу
              11
Db
            1 KR 2
RESULT 73
Q8HQX5
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ID
     08H0X5
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AC
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     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribulose 1,5 bisphosphate carboxylase large subunit (EC 4.1.1.39)
DΕ
DE
     (Fragment).
     RBCL.
GN
OS
     Rhabdothamnopsis sinensis.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
OC
     lamiids; Lamiales; Gesneriaceae; Cyrtandroideae; Didymocarpeae;
OC
     Rhabdothamnopsis.
OX
     NCBI TaxID=199121;
RN
RP
     SEQUENCE FROM N.A.
RA
     Mayer V.E., Moeller M., Perret M., Weber A.;
RT
     "Phylogenetic position and generic differentiation of Epithemateae
RT
     (Gesneriaceae) inferred from cpDNA sequence data.";
     Am. J. Bot. 0:0-0(0).
RL
DR
     EMBL; AJ490915; CAD36598.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
     GO; GO:0016829; F:lyase activity; IEA.
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KW
     Lyase; Chloroplast.
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                  11
                         11
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                          18.2%; Score 2; DB 8; Length 11;
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  Best Local Similarity
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            2; Conservative 0; Mismatches
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  Matches
                                                        Indels
                                                                  0; Gaps
            1 AS 2
Qу
              \mathbf{I}
            9 AS 10
Db
RESULT 74
Q7Y9H0
ID
     O7Y9H0
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
AC
     O7Y9H0;
DT
     01-OCT-2003 (TrEMBLrel. 25, Created)
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DE
     Cytochrome c oxidase subunit I (Fragment).
GN
     COI.
     Hypsilurus modestus.
OS
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Amphibolurinae;
OC
OC
     Hypsilurus.
     NCBI TaxID=206594;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=22653719; PubMed=12769459;
RX
     Schulte J.A. II, Melville J., Larson A.;
RA
     "Molecular phylogenetic evidence for ancient divergence of lizard taxa
RT
     on either side of Wallace's Line.";
RT
     Proc. R. Soc. Lond., B, Biol. Sci. 270:597-603(2003).
RL
     EMBL; AY133015; AAN15868.1; -.
DR
KW
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     NON TER
FT
                  11
                         11
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                11 AA; 1335 MW;
                                 0005371E33640440 CRC64;
SO
                          18.2%; Score 2; DB 8; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+05;
            2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            8 NI 9
Qу
              1.1
Db
            3 NI 4
RESULT 75
Q37925
     Q37925
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
AC
     037925;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DΤ
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DΤ
```

GO; GO:0016984; F:ribulose-bisphosphate carboxylase activity; IEA.

DR

```
Bacteriophage fr replicase (Fragment).
DE
OS
     Bacteriophage fr.
     Viruses; ssRNA positive-strand viruses, no DNA stage; Leviviridae;
OC
     Levivirus.
OC
     NCBI TaxID=12017;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Berzin V.M., Gribanov V.A., Cielens I.E., Jansone I.V., Gren E.J.;
RA
     "The nucleotide sequence of the regulatory region of phage fr
RT
     replicase cistron.";
RT
     Bioorg. Khim. 7:306-308(1981).
RL
     EMBL; M34834; AAA32193.1; -.
DR
     NON TER
FT
                 11
                        11
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               11 AA; 1285 MW; 8BD43470C33321B1 CRC64;
SQ
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 Query Match
 Best Local Similarity
                         100.0%; Pred. No. 1.2e+05;
            2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
           2 SK 3
Qу
             11
Db
           2 SK 3
```

Search completed: April 8, 2004, 15:46:00

Job time : 29.7692 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 5.15385 Seconds

(without alignments)

111.135 Million cell updates/sec

Title: US-09-787-443A-1

Perfect score: 11

Sequence:

1 ASKKPKRNIKA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 141681 segs, 52070155 residues

Word size : 0

Total number of hits satisfying chosen parameters: 70

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: SwissProt 42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	₹				
	Query				
Score	Match	Length	DB	ID	Description
4	36.4	11	1	CSI5_BACSU	P81095 bacillus su
2	18.2	11	1	BPPB_AGKHA	P01021 agkistrodon
2	18.2	11	1	BRK_MEGFL	P12797 megascolia
2	18.2	11	1	EFG CLOPA	P81350 clostridium
2	18.2	11	1	LADD ONCMY	P81018 oncorhynchu
2	18.2	11	1	MORN HUMAN	P01163 homo sapien
2	18.2	11	1	OAIF SARBU	P83518 sarcophaga
2	18.2	11	1.	PVK1 PERAM	P41837 periplaneta
2	18.2	11	1	Q2OA COMTE	P80464 comamonas t
2	18.2	11	1	RR2_CONAM	P42341 conopholis
2	18.2	11	1	TKN2 UPERU	P08616 uperoleia r
2	18.2	11	1	TKNA GADMO	P28498 gadus morhu
2	18.2	11	1	TKNA HORSE	P01290 equus cabal
2	18.2	11	1	TKNA ONCMY	P28499 oncorhynchu
2	18.2	11	1	TKNA RANCA	P22688 rana catesb
2	18.2	11	1	TKNA RANRI	P29207 rana ridibu
2	18.2	11	1	TKNA_SCYCA	P41333 scyliorhinu
	4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Query Score Match 4 36.4 2 18.2	Query Score Match Length 4 36.4 11 2 18.2 11	Query Score Match Length DB 4 36.4 11 1 2 18.2 11 1	Query Score Match Length DB ID 4 36.4 11 1 CSI5_BACSU 2 18.2 11 1 BPPB_AGKHA 2 18.2 11 1 BRK_MEGFL 2 18.2 11 1 EFG_CLOPA 2 18.2 11 1 LADD_ONCMY 2 18.2 11 1 MORN_HUMAN 2 18.2 11 1 OAIF_SARBU 2 18.2 11 1 PVK1_PERAM 2 18.2 11 1 RR2_CONAM 2 18.2 11 1 TKN2_UPERU 2 18.2 11 1 TKNA_GADMO 2 18.2 11 1 TKNA_HORSE 2 18.2 11 1 TKNA_NCA 2 18.2 11 1 TKNA_RANCA 2 18.2 11 1 TKNA_RANCA

	_						
18	2	18.2	11	1	TKND_RANCA	P22691	rana catesb
19	2	18.2	11	1	TKN ELEMO	P01293	eledone mos
20	1	9.1	11	1	ANGT CRIGE	P09037	crinia geor
21	1	9.1	11	1	ASL1 BACSE		bacteroides
22	1	9.1	11	1	ASL2 BACSE		bacteroides
23	1	9.1	11	1	BPP3 BOTIN		bothrops in
24	1	9.1					_
			11	1	BPP4_BOTIN		bothrops in
25	1	9.1	11	1	BPP_AGKHP		agkistrodon
26	1	9.1	11	1	CA21_LITCI		litoria cit
27	1	9.1	11	1	CA22_LITCI	P82088	litoria cit
28	1	9.1	11	1	CA41_LITCI	P82091	litoria cit
29	1	9.1	11	1	CA42 LITCI	P82092	litoria cit
30	1	9.1	11	1	CEP1 ACHFU	P22790	achatina fu
31	1	9.1	11	1	CORZ PERAM		periplaneta
32	1	9.1	11	1	COXA CANFA		canis famil
33	1	9.1	11	1	CX5A CONAL		conus aulic
34	1	9.1	11	1			
					CX5B_CONAL		conus aulic
35	1	9.1	11	1	CXL1_CONMR		conus marmo
36	1	9.1	11	1	ES1_RAT		rattus norv
37	1	9.1	11	1	FAR6_PENMO		penaeus mon
38	1	9.1	11	1	FAR9_CALVO	P41864	calliphora
39	1	9.1	11	1	HS70 PINPS	P81672	pinus pinas
40	1	9.1	11	1	LPW THETH	P05624	thermus the
41	1	9.1	11	1	LSK1 LEUMA	P04428	leucophaea
42	1	9.1	11	1	LSKP PERAM		periplaneta
43	1	9.1	11	1	MHBI KLEPN		klebsiella
44	1	9.1	11	1	MLG THETS		theromyzon
45	1	9.1	11	1	NUHM CANFA		canis famil
46					-		
	1	9.1	11	1	NXSN_PSETE		pseudonaja
47	1	9.1	11	1	PKC1_CARMO		carausius m
48	1	9.1	11	1	PQQC_PSEFL		pseudomonas
49	1	9.1	11	1	RANC_RANPI		rana pipien
50	1	9.1	11	1	$\mathtt{RE41_LITRU}$	P82074	litoria rub
51	1	9.1	11	1	RRPL CHAV	P13179	chandipura
52	1	9.1	11	1	RS30 ONCMY	P83328	oncorhynchu
53	1	9.1	11	1	T2P1 PROVU		proteus vul
54	1	9.1	11	1	TIN1 HOPTI		hoplobatrac
55	1	9.1	11	1	TIN4 HOPTI		hoplobatrac
56	1	9.1	11	1	TKC2 CALVO		calliphora
57	1	9.1	11	1	TKN1_PSEGU		pseudophryn
58	1	9.1	11	1	TKN1_UPEIN		uperoleia i
59	1	9.1	11	1	TKN1_UPERU		uperoleia r
60	1	9.1	11	1	TKN2_PSEGU		pseudophryn
61	1	9.1	11	1	TKN3_PSEGU	P42988	pseudophryn
62	1	9.1	11	1	TKN4_PSEGU	P42989	pseudophryn
63	1	9.1	11	1	TKN5 PSEGU	P42990	pseudophryn
64	1	9.1	11	1	TKNA CHICK		gallus gall
65	1	9.1	11	1	TKN PHYFU		physalaemus
66	1	9.1	11	1	UF05 MOUSE		mus musculu
67	1	9.1	11	1	ULAG HUMAN		homo sapien
68	1	9.1	11	1	UXB2 YEAST		saccharomyc
							-
69	0	0.0	11	1	CA31_LITCI		litoria cit
70	0	0.0	11	1	CA32_LITCI	P82090	litoria cit

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RESULT 1
CSI5 BACSU
ID
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                    STANDARD;
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                                            11 AA.
AC
     P81095;
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Cold shock protein CSI5 (11 kDa cold shock protein) (Fragment).
DΕ
OS
     Bacillus subtilis.
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
     NCBI TaxID=1423;
OX
RN
     [1]
RP
     SEQUENCE.
     STRAIN=168 / JH642;
RC
     Graumann P.L., Schmid R., Marahiel M.A.;
RA
     Submitted (OCT-1997) to Swiss-Prot.
RL
RN
     CHARACTERIZATION.
RP
RC
     STRAIN=168 / JH642;
    MEDLINE=96345629; PubMed=8755892;
RX
     Graumann P., Schroeder K., Schmid R., Marahiel M.A.;
RA
RT
     "Cold shock stress-induced proteins in Bacillus subtilis.";
     J. Bacteriol. 178:4611-4619(1996).
RL
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
CC
     -!- INDUCTION: In response to low temperature.
CC
     -!- CAUTION: Could not be found in the genome of B. subtilis 168.
FT
     NON TER
                  11
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SQ
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                                                                       Gaps
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            7 RNIK 10
              IIIII
            2 RNIK 5
RESULT 2
BPPB AGKHA
     BPPB AGKHA
ΙD
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                                    PRT;
                                            11 AA.
AC
     P01021;
DT
     21-JUL-1986 (Rel. 01, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide B (Angiotensin-converting
DE
DE
     enzyme inhibitor).
     Aqkistrodon halys blomhoffi (Mamushi) (Gloydius blomhoffii).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=242054;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RA
     Kato H., Suzuki T.;
```

```
"Amino acid sequence of bradykinin-potentiating peptide isolated from
RT
RT
     the venom of Agkistrodon halys blomhoffii.";
     Proc. Jpn. Acad., B, Phys. Biol. Sci. 46:176-181(1970).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
CC
         bradykinin by inhibiting the kinases that inactivate it.
         It acts as an indirect hypotensive agent.
CC
DR
     PIR; A01254; XASNBA.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   1
                          1
     SEQUENCE
                        1199 MW; 295CBF0627741777 CRC64;
                11 AA;
SO
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.4e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                   0; Gaps
                                                                               0;
             2; Conservative
                                                    0; Indels
            5 PK 6
Qу
              \mathbf{I}
            7 PK 8
Db
RESULT 3
BRK MEGFL
     BRK MEGFL
                                            11 AA.
                    STANDARD;
                                    PRT;
ΙD
AC
     P12797;
     01-OCT-1989 (Rel. 12, Created)
DT
     01-OCT-1989 (Rel. 12, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
    Megascoliakinin ([Thr6]bradykinin-Lys-Ala) [Contains: Bradykinin-like
DE
DE
     peptide ([Thr6]bradykinin)].
    Megascolia flavifrons (Garden dagger wasp) (Solitary wasp).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
OC
OC
     Scoliidae; Megascolia.
    NCBI TaxID=7437;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
    MEDLINE=87293024; PubMed=3617088;
RA
     Yasuhara T., Mantel P., Nakajima T., Piek T.;
     "Two kinins isolated from an extract of the venom reservoirs of the
RT
     solitary wasp Megascolia flavifrons.";
RT
     Toxicon 25:527-535(1987).
RL
RN
     [2]
     SEQUENCE.
RP
RC
     TISSUE=Venom;
     Nakajima T., Piek T., Yashuara T., Mantel P.;
RA
RT
     "Two kinins isolated from the venom of Megascolia flavifrons.";
RL
     Toxicon 26:34-34(1988).
CC
     -!- FUNCTION: Both proteins have bradykinin-like, although lower
CC
         activities (e.g. smooth muscle contraction).
CC
     -!- SUBCELLULAR LOCATION: Secreted; wasp venom reservoirs.
CC
     -!- SIMILARITY: Belongs to the bradykinin family.
DR
     PIR; B26744; B26744.
DR
     GO; GO:0005615; C:extracellular space; IDA.
DR
     GO; GO:0045776; P:negative regulation of blood pressure; ISS.
DR
     GO; GO:0045987; P:positive regulation of smooth muscle contra. . .; TAS.
```

```
Bradykinin; Vasodilator.
KW
     PEPTIDE
                   1
FT
                         11
                                  MEGASCOLIAKININ.
     PEPTIDE
                   1
                          9
FT
                                  BRADYKININ-LIKE PEPTIDE.
     SEQUENCE
                11 AA; 1273 MW;
                                  33867393D771A9C8 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
                               0; Mismatches
  Matches
             2; Conservative
                                                    0;
                                                                              0;
                                                        Indels
                                                                  0; Gaps
           10 KA 11
Qv
              11
           10 KA 11
Db
RESULT 4
EFG CLOPA
     EFG CLOPA
                    STANDARD;
                                   PRT;
                                            11 AA.
     P81350;
AC
DT
     15-JUL-1998 (Rel. 36, Created)
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Elongation factor G (EF-G) (CP 5) (Fragment).
GN
     FUSA.
os
     Clostridium pasteurianum.
OC
     Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae;
OC
     Clostridium.
     NCBI TaxID=1501;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     STRAIN=W5;
RX
     MEDLINE=98291870; PubMed=9629918;
RA
     Flengsrud R., Skjeldal L.;
RT
     "Two-dimensional gel electrophoresis separation and N-terminal
RT
     sequence analysis of proteins from Clostridium pasteurianum W5.";
RL
     Electrophoresis 19:802-806(1998).
CC
     -!- FUNCTION: This protein promotes the GTP-dependent translocation of
CC
         the nascent protein chain from the A-site to the P-site of the
CC
         ribosome.
CC
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
     -!- SIMILARITY: Belongs to the GTP-binding elongation factor family.
CC
         EF-G/EF-2 subfamily.
     InterPro; IPR000795; EF GTPbind.
DR
DR
     PROSITE; PS00301; EFACTOR GTP; PARTIAL.
KW
     Elongation factor; Protein biosynthesis; GTP-binding.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA;
                        1337 MW; 412E71F1D9C33B17 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
Qу
            8 NI 9
Db
            9 NI 10
```

```
LADD ONCMY
ID
     LADD ONCMY
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P81018;
DT
     01-NOV-1997 (Rel. 35, Created)
     01-NOV-1997 (Rel. 35, Last sequence update)
DT
     15-DEC-1998 (Rel. 37, Last annotation update)
DT
     Ladderlectin (Fragment).
DE
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
     NCBI TaxID=8022;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Blood;
RX
     MEDLINE=97293418; PubMed=9149391;
     Jensen L.E., Thiel S., Petersen T.E., Jensenuis J.C.;
RA
RT
     "A rainbow trout lectin with multimeric structure.";
RL
     Comp. Biochem. Physiol. 116B:385-390(1997).
     -!- FUNCTION: Lectin that binds sepharose.
CC
     -!- COFACTOR: Calcium is essential for sepharose binding.
CC
CC
     -!- SUBUNIT: Multimeric.
KW
     Lectin; Calcium.
FT
     NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA; 1163 MW;
                                  0B26227FF6D45404 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            7 RN 8
Qу
              \mathbf{I}
Db
            5 RN 6
RESULT 6
MORN HUMAN
                                    PRT;
ID
     MORN HUMAN
                    STANDARD;
                                            11 AA.
AC
     P01163;
DT
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Morphogenetic neuropeptide (Head activator) (HA).
OS
     Homo sapiens (Human),
ÖS
     Rattus norvegicus (Rat),
OS
     Bos taurus (Bovine),
OS
     Anthopleura elegantissima (Sea anemone), and
OS
     Hydra attenuata (Hydra) (Hydra vulgaris).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606, 10116, 9913, 6110, 6087;
RN
     [1]
RP
     SEQUENCE.
     SPECIES=Human, Rat, and Bovine;
RC
RX
     MEDLINE=82035850; PubMed=7290191;
     Bodenmuller H., Schaller H.C.;
RA
RT
     "Conserved amino acid sequence of a neuropeptide, the head activator,
```

```
RT
     from coelenterates to humans.";
     Nature 293:579-580(1981).
RL
RN
     [2]
RP
     SEQUENCE.
     SPECIES=A.elegantissima, and H.attenuata;
RC
RA
     Schaller H.C., Bodenmuller H.;
     "Isolation and amino acid sequence of a morphogenetic peptide from
RT
     hydra.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 78:7000-7004(1981).
RL
RN
     [3]
RP
     SYNTHESIS.
     MEDLINE=82050803; PubMed=7297679;
RX
     Birr C., Zachmann B., Bodenmuller H., Schaller H.C.;
RA
RT
     "Synthesis of a new neuropeptide, the head activator from hydra.";
     FEBS Lett. 131:317-321(1981).
RL
RN
     [4]
     FUNCTION.
RP
RX
     MEDLINE=90059923; PubMed=2583101;
RA
     Schaller H.C., Druffel-Augustin S., Dubel S.;
RT
     "Head activator acts as an autocrine growth factor for NH15-CA2 cells
RT
     in the G2/mitosis transition.";
     EMBO J. 8:3311-3318(1989).
RL
CC
     -!- FUNCTION: HA acts as an autocrine growth factor for neural cells
CC
         in the G2/mitosis transition.
CC
     -!- CAUTION: This peptide was first isolated from nerve cells of hydra
CC
         and was called head activator by the authors, because it induced
CC
         head-specific growth and differentiation in this animal. It has
CC
         been found in mammalian intestine and hypothalamus.
     PIR; A01427; YHRT.
DR
     PIR; A93900; YHXAE.
DR
DR
     PIR; B01427; YHHU.
DR
     PIR; B93900; YHJFHY.
DR
     PIR; C01427; YHBO.
DR
     GK; P01163; -.
KW
     Growth factor; Cell cycle; Mitosis; Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                   PYRROLIDONE CARBOXYLIC ACID.
SQ
     SEQUENCE
                11 AA; 1142 MW; 37927417C325B878 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
                                 0; Mismatches
  Matches
             2; Conservative
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            2 SK 3
Qγ
              \mathbf{H}
            6 SK 7
Db
RESULT 7
OAIF SARBU
ID
     OAIF SARBU
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P83518;
DT
     10-OCT-2003 (Rel. 42, Created)
     10-OCT-2003 (Rel. 42, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Ovary-derived ACE interactive factor (Neb-ODAIF) [Contains: Neb-
     ODAIF(1-9); Neb-ODAIF(1-7)].
DE
OS
     Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
```

```
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
     Sarcophagidae; Sarcophaga.
OC
OX
     NCBI TaxID=7385;
RN
     SEQUENCE, SYNTHESIS, CHARACTERIZATION, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Ovary;
     MEDLINE=22272747; PubMed=12383874;
RX
     Vandingenen A., Hens K., Baggerman G., Macours N., Schoofs L.,
RA
     De Loof A., Huybrechts R.;
RA
     "Isolation and characterization of an angiotensin converting enzyme
RT
     substrate from vitellogenic ovaries of Neobellieria bullata.";
RT
     Peptides 23:1853-1863(2002).
RL
     -!- FUNCTION: Substrate for angiotensin converting enzyme (ACE) in
CC
CC
         vitro.
     -!- PTM: ACE hydrolyzes Neb-ODAIF by sequentially cleaving off two C-
CC
         terminal dipeptides.
CC
     -!- MASS SPECTROMETRY: MW=1312.7; METHOD=MALDI; RANGE=1-11.
CC
CC
     -!- SIMILARITY: To the N-terminal part of insect vitellogenins.
                         11
FT
     PEPTIDE
                   1
                                  NEB-ODAIF.
FT
     PEPTIDE
                   1
                          9
                                  NEB-ODAIF (1-9).
FT
                          7
                                  NEB-ODAIF(1-7).
     PEPTIDE
                   1
                11 AA; 1314 MW; 4E114BB566C5A763 CRC64;
SO
     SEQUENCE
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            4 KP 5
              \mathbf{I}
Db
            4 KP 5
RESULT 8
PVK1 PERAM
     PVK1 PERAM
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P41837;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
DΕ
     Periviscerokinin-1 (Pea-PVK-1).
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
     NCBI TaxID=6978;
OX
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RP
RC
     TISSUE=Abdominal perisympathetic organs;
     MEDLINE=95232021; PubMed=7716075;
RX
RA
     Predel R., Linde D., Rapus J., Vettermann S., Penzlin H.;
RT
     "Periviscerokinin (Pea-PVK): a novel myotropic neuropeptide from the
RT
     perisympathetic organs of the American cockroach.";
RL
     Peptides 16:61-66(1995).
     -!- FUNCTION: MYOACTIVE PEPTIDE; HAS EXCITORY ACTIONS ON THE
CC
CC
         HYPERNEURAL MUSCLE.
KW
     Neuropeptide; Amidation.
```

OC

```
FT
     MOD RES
                  11
                                  AMIDATION.
     SEQUENCE
SO
                11 AA; 1114 MW;
                                  39DB5419D7605728 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
            1 AS 2
Qу
             2 AS 3
Db
RESULT 9
O2OA COMTE
     Q2OA COMTE
                    STANDARD:
                                   PRT:
                                           11 AA.
AC
     P80464;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
     Quinoline 2-oxidoreductase, alpha chain (EC 1.3.99.17) (Fragment).
DE
     Comamonas testosteroni (Pseudomonas testosteroni).
OS
     Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC
OC
     Comamonadaceae; Comamonas.
    NCBI TaxID=285;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=63;
RX
    MEDLINE=96035889; PubMed=7556204;
RA
     Schach S., Tshisuaka B., Fetzner S., Lingens F.;
RT
     "Quinoline 2-oxidoreductase and 2-oxo-1,2-dihydroquinoline 5,6-
RT
     dioxygenase from Comamonas testosteroni 63. The first two enzymes in
RT
     quinoline and 3-methylquinoline degradation.";
     Eur. J. Biochem. 232:536-544(1995).
RL
CC
     -!- FUNCTION: Converts (3-methyl-)-quinoline to (3-methyl-)2-oxo-
CC
         1,2-dihydroquinoline.
CC
     -!- CATALYTIC ACTIVITY: Quinoline + acceptor + H(2)O = isoquinolin-
CC
         1(2H)-one + reduced acceptor.
CC
     -!- COFACTOR: FAD, molybdenum and iron-sulfur.
CC
     -!- PATHWAY: Degradation of quinoline and (3-methyl-)quinoline; first
CC
CC
     -!- SUBUNIT: Heterohexamer of two alpha chains, two beta chains, and
CC
         two gamma chains (Probable).
     PIR; S66606; S66606.
DR
KW
     Oxidoreductase; Flavoprotein; FAD; Molybdenum.
FT
    NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA; 1213 MW; 869094322B1DC2CA CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
 Matches
                              0; Mismatches
            2; Conservative
                                                   0; Indels
                                                                 0;
                                                                     Gaps
                                                                             0;
Qу
            4 KP 5
              11
            9 KP 10
Dh
```

11

```
RR2 CONAM
ID
    RR2 CONAM
                  STANDARD;
                                 PRT;
                                        11 AA.
AC
    P42341;
DT
    01-NOV-1995 (Rel. 32, Created)
    01-NOV-1995 (Rel. 32, Last sequence update)
DT
    28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
    Chloroplast 30S ribosomal protein S2 (Fragment).
GN
    Conopholis americana (Squawroot).
OS
OG
    Chloroplast.
OC
    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
    Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
    lamiids; Lamiales; Orobanchaceae; Orobancheae; Conopholis.
OC
OX
    NCBI TaxID=4179;
RN
    [1]
    SEQUENCE FROM N.A.
RP
    MEDLINE=92145776; PubMed=1723664;
RX
RA
    Taylor G., Wolfe K.H., Morden C.W., Depamphilis C.W., Palmer J.D.;
    "Lack of a functional plastid tRNA(Cys) gene is associated with loss
RT
    of photosynthesis in a lineage of parasitic plants.";
RT
RL
    Curr. Genet. 20:515-518(1991).
CC
    -!- SIMILARITY: Belongs to the S2P family of ribosomal proteins.
CC
    ______
CC
    This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
    the European Bioinformatics Institute. There are no restrictions on
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    use by non-profit institutions as long as its content is in no way
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    modified and this statement is not removed. Usage by and for commercial
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    entities requires a license agreement (See http://www.isb-sib.ch/announce/
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    or send an email to license@isb-sib.ch).
CC
    _______
DR
    EMBL; X64567; CAA45868.1; -.
DR
    PIR; S32575; S32575.
DR
    HAMAP; MF 00291; -; 1.
DR
    InterPro; IPR001865; Ribosomal S2.
    PROSITE; PS00962; RIBOSOMAL S2 1; PARTIAL.
    PROSITE; PS00963; RIBOSOMAL S2 2; PARTIAL.
DR
KW
    Ribosomal protein; Chloroplast.
FT
    NON TER
                11
                       11
SQ
    SEQUENCE
              11 AA; 1497 MW; 76CD719954536B44 CRC64;
 Query Match
                        18.2%; Score 2; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.4e+04;
           2; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
                                                                         0;
           8 NI 9
Qу
             7 NI 8
Db
RESULT 11
TKN2 UPERU
TD
    TKN2 UPERU
                  STANDARD;
                                 PRT;
                                        11 AA.
    P08616;
AC
    01-AUG-1988 (Rel. 08, Created)
DT
DT
    01-FEB-1994 (Rel. 28, Last sequence update)
DΤ
    10-OCT-2003 (Rel. 42, Last annotation update)
```

```
DE
     Rugosauperolein II ([Lys5, Thr6]physalaemin).
     Uperoleia rugosa (Wrinkled toadlet).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=8368;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=80223080; PubMed=7389029;
RX
RA
     Nakajima T., Yasuhara T., Erspamer V., Erspamer G.F., Negri L.;
     "Physalaemin- and bombesin-like peptides in the skin of the
RT
     Australian leptodactylid frog Uperoleia rugosa.";
RT
     Chem. Pharm. Bull. 28:689-695(1980).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
СC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                        1270 MW;
SQ
                11 AA;
                                  3293693E59D1A327 CRC64;
                          18.2%;
                                 Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                                               0;
                                                        Indels
                                                                  0; Gaps
            5 PK 6
Qу
              II
Db
            4 PK 5
RESULT 12
TKNA GADMO
                                    PRT;
ID
     TKNA GADMO
                    STANDARD;
                                            11 AA.
AC
     P28498;
DT
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Substance P.
OS
     Gadus morhua (Atlantic cod).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Paracanthopterygii; Gadiformes; Gadidae; Gadus.
OX
     NCBI TaxID=8049;
RN
     [1]
RΡ
     SEQUENCE.
RC
     TISSUE=Brain;
RX
     MEDLINE=92298992; PubMed=1376687;
RA
     Jensen J., Conlon J.M.;
```

```
RТ
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
     of the cod and trout.";
RL
     Eur. J. Biochem. 206:659-664(1992).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; S23306; S23306.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
FT
                                  AMIDATION (BY SIMILARITY).
                  11
                         11
     SEQUENCE
SO
                11 AA; 1315 MW; 214860D759D6C6C7 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            4 KP 5
Qу
              | | |
            1 KP 2
Db
RESULT 13
TKNA HORSE
ID
     TKNA HORSE
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P01290;
DT
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P.
     TAC1 OR NKNA OR TAC2 OR NKA.
GN
     Equus caballus (Horse), and
os
     Cavia porcellus (Guinea pig).
os
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
     NCBI TaxID=9796, 10141;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     SPECIES=Horse;
     Studer R.O., Trzeciak A., Lergier W.;
RA
RT
     "Isolation and amino-acid sequence of substance P from horse
RT
     intestine.";
     Helv. Chim. Acta 56:860-866(1973).
RL
RN
     [2]
RP
     SEQUENCE.
RC
     SPECIES=C.porcellus;
RX
     MEDLINE=90044685; PubMed=2478925;
RA
     Murphy R.;
RT
     "Primary amino acid sequence of guinea-pig substance P.";
RL
     Neuropeptides 14:105-110(1989).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
```

```
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; A01558; SPHO.
DR
DR
     PIR; A60654; A60654.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA;
     SEQUENCE
                        1349 MW;
                                  3E757FE3C9D6C6C7 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
             2; Conservative
                                0; Mismatches
                                                                  0; Gaps
                                                                               0:
                                                    0; Indels
            5 PK 6
Qy
              11
Db
            2 PK 3
RESULT 14
TKNA ONCMY
     TKNA ONCMY
                    STANDARD:
                                    PRT;
                                            11 AA.
AC
     P28499;
DT
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P.
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
     NCBI TaxID=8022;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
     MEDLINE=92298992; PubMed=1376687;
RX
RA
     Jensen J., Conlon J.M.;
RT
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
     of the cod and trout.";
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; S23308; S23308.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
```

```
PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
     MOD RES
                  11
                         11
                                   AMIDATION (BY SIMILARITY).
SQ
     SEQUENCE
                11 AA; 1358 MW;
                                   214860DEC9D6D1F7 CRC64;
  Query Match
                           18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.4e+04;
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            4 KP 5
Qу
              +1
Db
            1 KP 2
RESULT 15
TKNA RANCA
     TKNA RANCA
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P22688;
AC
DT
     01-AUG-1991 (Rel. 19, Created)
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
DΤ
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Ranatachykinin A (RTK A).
OS
     Rana catesbeiana (Bull frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OX
     NCBI TaxID=8400;
RN
RP
     SEQUENCE, AND SYNTHESIS.
RC
     TISSUE=Brain, and Intestine;
RX
     MEDLINE=91254337; PubMed=2043143;
RA
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
     brain and intestine.";
RT
RL
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RN
     [2]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
RX
     MEDLINE=94023216; PubMed=8210506;
RA
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RT
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
     intestine.";
RL
     Regul. Pept. 46:81-88(1993).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; A61033; A61033.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation.
\operatorname{FT}
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEOUENCE
                11 AA; 1311 MW; 200D60CC59D40AB7 CRC64;
```

```
Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            4 KP 5
Qу
              11
            1 KP 2
Db
RESULT 16
TKNA RANRI
     TKNA RANRI
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P29207;
     01-DEC-1992 (Rel. 24, Created)
DT
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranakinin (Substance-P-related peptide).
DΕ
     Rana ridibunda (Laughing frog) (Marsh frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
     NCBI TaxID=8406;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Brain;
RX
     MEDLINE=92044543; PubMed=1658233;
RA
     O'Harte F., Burcher E., Lovas S., Smith D.D., Vaudry H., Conlon J.M.;
RT
     "Ranakinin: a novel NK1 tachykinin receptor agonist isolated with
RT
     neurokinin B from the brain of the frog Rana ridibunda.";
     J. Neurochem. 57:2086-2091(1991).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
SQ
                11 AA; 1352 MW;
                                  3A2460CC59D40B07 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                  0;
                                                      Indels
                                                                  0; Gaps
                                                                              0;
            4 KP 5
Qу
              11
Db
            1 KP 2
RESULT 17
TKNA SCYCA
    TKNA SCYCA
                                   PRT;
                    STANDARD;
                                           11 AA.
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AC
     P41333;
     01-FEB-1995 (Rel. 31, Created)
DT
DT
     01-FEB-1995 (Rel. 31, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Substance P.
     Scyliorhinus canicula (Spotted dogfish) (Spotted catshark).
os
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC
     Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes;
OC
     Scyliorhinidae; Scyliorhinus.
OC
OX
     NCBI TaxID=7830;
RN.
     [1]
RΡ
     SEQUENCE.
RC
     TISSUE=Brain:
     MEDLINE=93292508; PubMed=7685693;
RX
RA
     Waugh D., Wang Y., Hazon N., Balment R.J., Conlon J.M.;
RT
     "Primary structures and biological activities of substance-P-related
RT
     peptides from the brain of the dogfish, Scyliorhinus canicula.";
RL
     Eur. J. Biochem. 214:469-474(1993).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; S33300; S33300.
DR
DR
     InterPro; IPR002040; Tachy Neurokinin.
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
     MOD RES
                         11
                                  AMIDATION.
                  11
     SEQUENCE
                11 AA; 1278 MW; 214860DEC9D6D867 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
            4 KP 5
Qy
              \Pi
            1 KP 2
Db
RESULT 18
TKND RANCA
     TKND RANCA
                    STANDARD;
                                    PRT:
                                            11 AA.
AC
     P22691;
DT
     01-AUG-1991 (Rel. 19, Created)
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Ranatachykinin D (RTK D).
OS
     Rana catesbeiana (Bull frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
     NCBI TaxID=8400;
RN
     [1]
RP
     SEQUENCE, AND SYNTHESIS.
RC
     TISSUE=Intestine;
RX
     MEDLINE=91254337; PubMed=2043143;
RA
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
```

```
"Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
     brain and intestine.";
RT
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RL
RN
     SEQUENCE.
RP
RC
     TISSUE=Intestine;
RX
     MEDLINE=94023216; PubMed=8210506;
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
RT
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
     intestine.";
RT
     Regul. Pept. 46:81-88(1993).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; D61033; D61033.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; FALSE NEG.
DR
ΚW
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                  11
                        11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1350 MW; 3A34256C59D40B07 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            4 KP 5
Qу
              \mathbf{11}
            1 KP 2
Db
RESULT 19
TKN ELEMO
ΙD
     TKN ELEMO
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P01293;
DT
     21-JUL-1986 (Rel. 01, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Eledoisin.
OS
     Eledone moschata (Musky octopus) (Ozaena moschata), and
OS
     Eledone cirrhosa (Curled octopus) (Ozaena cirrosa).
OC
     Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC
     Octopodiformes; Octopoda; Incirrata; Octopodidae; Eledone.
OX
     NCBI TaxID=6641, 102876;
RN
     [1]
RP
     SEOUENCE.
RA
     Anastasi A., Erspamer V.;
RT
     "The isolation and amino acid sequence of eledoisin, the active
RT
     endecapeptide of the posterior salivary glands of Eledone.";
RL
     Arch. Biochem. Biophys. 101:56-65(1963).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
```

```
-!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; A01561; EOOC.
DR
     PIR; B01561; EOOCC.
DR
     PDB; 1MXQ; 18-FEB-03.
DR
DR
     InterPro; IPR002040; Tachy Neurokinin.
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Tachykinin; Neuropeptide; Amidation; Pyrrolidone carboxylic acid;
     3D-structure.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                          1
FT
     MOD RES
                  11
                         11
                                   AMIDATION.
SO
     SEQUENCE
                        1206 MW;
                                  570D7C2559CDDAA3 CRC64;
                11 AA;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0; Gaps
                                                                               0;
            2 SK 3
Qу
              \mathbf{I}
Db
            3 SK 4
RESULT 20
ANGT CRIGE
     ANGT CRIGE
                    STANDARD;
TD
                                    PRT;
                                            11 AA.
AC
     P09037;
DΤ
     01-NOV-1988 (Rel. 09, Created)
     01-NOV-1988 (Rel. 09, Last sequence update)
DΨ
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Crinia-angiotensin II.
OS
     Crinia georgiana (Quacking frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Crinia.
OX
     NCBI TaxID=8374;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=80024575; PubMed=488254;
RA
     Erspamer V., Melchiorri P., Nakajima T., Yasuhara T., Endean R.;
RT
     "Amino acid composition and sequence of crinia-angiotensin, an
     angiotensin II-like endecapeptide from the skin of the Australian
RT
RT
     frog Crinia georgiana.";
RL
     Experientia 35:1132-1133(1979).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
DR
     PIR; S07207; S07207.
KW
     Vasoconstrictor.
SO
     SEQUENCE
                11 AA; 1271 MW;
                                  8A0921F7DB50440A CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1;
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
 Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
Qy
            1 A 1
              -1
Db
            1 A 1
```

CC

```
RESULT 21
ASL1 BACSE
     ASL1 BACSE
                    STANDARD;
                                    PRT;
ID
                                            11 AA.
AC
     P83146;
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 1 (EC 4.2.2.-) (Fragment).
DE
     Bacteroides stercoris.
OS
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
OC
     Bacteroidaceae; Bacteroides.
     NCBI_TaxID=46506;
OX
RN
     [1]
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RP
RC
     STRAIN=HJ-15;
     MEDLINE=21223019; PubMed=11322884;
RX
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RA
     "Purification and characterization of acharan sulfate lyases, two
RT
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
RL
     Eur. J. Biochem. 268:2635-2641(2001).
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and cobalt.
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
         mercaptoethanol.
CC
     -!- SUBUNIT: Monomer.
     -!- PTM: The N-terminus is blocked.
CC
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
KW
     Lyase; Heparin-binding.
FT
     NON_TER
                   1
                          1
     NON TER
FT
                  11
                         11
SO
     SEQUENCE
                11 AA; 1395 MW; 01B2DAA241E865AB CRC64;
  Query Match
                            9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             1; Conservative
                                 0: Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            8 N 8
Qу
Db
            1 N 1
RESULT 22
ASL2 BACSE
ID
     ASL2 BACSE
                    STANDARD:
                                    PRT;
                                            11 AA.
     P83147;
AC
DТ
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DΕ
     Acharan sulfate lyase 2 (EC 4.2.2.-) (Fragment).
OS
     Bacteroides stercoris.
OC
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
     Bacteroidaceae; Bacteroides.
OX
     NCBI TaxID=46506;
```

```
SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RP
RC
     STRAIN=HJ-15;
RX
     MEDLINE=21223019; PubMed=11322884;
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RA
     "Purification and characterization of acharan sulfate lyases, two
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
RT
     Eur. J. Biochem. 268:2635-2641(2001).
RL
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and lead.
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
         mercaptoethanol.
CC
     -!- SUBUNIT: Monomer.
     -!- PTM: The N-terminus is blocked.
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
CC
         7.2 and optimum temperature 45 degrees Celsius.
KW
     Lyase; Heparin-binding.
FT
     NON TER
                   1
FT
     NON TER
                  11
                         11
     SEQUENCE
SO
                11 AA; 1195 MW; D79D897C7AA451AD CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
            1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 A 1
Qу
Db
            4 A 4
RESULT 23
BPP3 BOTIN
ID
     BPP3 BOTIN
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P30423;
DT
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Bradykinin-potentiating peptide S4,3,2 (10C) (Angiotensin-converting
DE
     enzyme inhibitor).
OS
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
     MEDLINE=90351557; PubMed=2386615;
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
     "Primary structure and biological activity of bradykinin potentiating
RT
RT
     peptides from Bothrops insularis snake venom.";
RL
     J. Protein Chem. 9:221-227(1990).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
```

RN

```
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
                                 PYRROLIDONE CARBOXYLIC ACID.
                         1
     SEQUENCE
SQ
                11 AA; 1199 MW; 20B25813C7741777 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
           1; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
            5 P 5
Qv
            4 P 4
Db
RESULT 24
BPP4 BOTIN
     BPP4 BOTIN
ID
                    STANDARD;
                                   PRT:
AC
     P30424;
DT
     01-APR-1993 (Rel. 25, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Bradykinin-potentiating peptide S4,1,2 (Angiotensin-converting
DΕ
     enzyme inhibitor).
OS
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
    MEDLINE=90351557; PubMed=2386615;
RA
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RT
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RL
     J. Protein Chem. 9:221-227(1990).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; D37196; D37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                  1
                         1
                                 PYRROLIDONE CARBOXYLIC ACID.
SO
     SEQUENCE 11 AA; 1143 MW; 20BBBF13C7741777 CRC64;
 Query Match
                           9.1%; Score 1; DB 1; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 1e+05;
            1; Conservative
                              0; Mismatches 0; Indels
 Matches
                                                                 0; Gaps
                                                                             0;
Qу
            5 P 5
            4 P 4
RESULT 25
BPP_AGKHP
ID
    BPP AGKHP
                   STANDARD;
                                  PRT;
                                           11 AA.
```

DR

PIR; C37196; C37196.

```
AC
     P04562;
DT
     13-AUG-1987 (Rel. 05, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DΕ
     Bradykinin-potentiating peptide (Angiotensin-converting
DΕ
     enzyme inhibitor).
OS
     Agkistrodon halys pallas (Chinese water mocassin) (Gloydius halys
OS
     pallas).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=8714;
RN
     [1]
RΡ
     SEOUENCE.
     TISSUE=Venom;
RC
     MEDLINE=86177022; PubMed=3008123;
RX
RA
     Chi C.-W., Wang S.-Z., Xu L.-G., Wang M.-Y., Lo S.-S., Huang W.-D.;
RT
     "Structure-function studies on the bradykinin potentiating peptide
     from Chinese snake venom (Agkistrodon halys pallas).";
RT
     Peptides 6 Suppl. 3:339-342(1985).
RL
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; JC0002; XAVIBH.
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
SQ
     SEQUENCE
                        1112 MW;
                                  30BABF1277686777 CRC64;
                11 AA;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
            1; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            7 R 7
Qy
Db
            3 R 3
RESULT 26
CA21 LITCI
ID
     CA21 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P82087;
DТ
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 2.1/2.1Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     MEDLINE=20057701; PubMed=10589099;
RX
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
```

```
ŔT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.1Y4 differs from isoform 2.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1372; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
     MOD RES
FT
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                   4
                          4
                                  SULFATION.
FT
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEOUENCE
SO
                11 AA; 1312 MW; 10DAB7C4EDD861BB CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            1 A 1
Qу
Db
            7 A 7
RESULT 27
CA22 LITCI
ID
     CA22 LITCI
                    STANDARD;
                                   PRT;
                                            11 AA.
     P82088;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 2.2/2.2Y4.
OS
     Litoria citropa (Australian blue mountains tree frog).
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.2Y4 differs from isoform 2.2 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
```

```
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
     MOD RES
FT
                                   PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
     MOD RES
FT
                   4
                          4
                                   SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
SQ
                11 AA; 1328 MW; 10DAB894EDD861BB CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                0; Mismatches
  Matches
                                                   0; Indels
            1; Conservative
                                                                  0; Gaps
                                                                              0;
Qу
            1 A 1
            7 A 7
Db
RESULT 28
CA41 LITCI
ID
     CA41 LITCI
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P82091;
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 4.1/4.1Y4.
     Litoria citropa (Australian blue mountains tree frog).
os
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RТ
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.1Y4 differs from isoform 4.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
ΚW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1328 MW; 10DAB7C4F5B861BB CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
```

DR

InterPro; IPR001651; Gastrin.

```
Best Local Similarity 100.0%; Pred. No. 1e+05;
  Matches
             1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            2 S 2
Qу
            7 s 7
Db
RESULT 29
CA42 LITCI
     CA42 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82092;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 4.2/4.2Y4.
DΕ
     Litoria citropa (Australian blue mountains tree frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.2Y4 differs from isoform 4.2 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1404; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1344 MW; 10DAB894F5B861BB CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             1; Conservative 0; Mismatches
 Matches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            2 S 2
Db
         7 S 7
```

RESULT 30 CEP1 ACHFU

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CEP1 ACHFU
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
     P22790;
AC
\mathbf{DT}
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     01-DEC-1992 (Rel. 24, Last annotation update)
DT
DΕ
     Cardio-excitatory peptide-1 (ACEP-1).
OS
     Achatina fulica (Giant African snail).
     Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
OC
     Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OC
     NCBI TaxID=6530;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=Ferussac; TISSUE=Heart atrium;
     MEDLINE=90211261; PubMed=2322251;
RX
     Fujimoto K., Ohta N., Yoshida M., Kubota I., Muneoka Y., Kobayashi M.;
RA
RT
     "A novel cardio-excitatory peptide isolated from the atria of the
     African giant snail, Achatina fulica.";
RT
     Biochem. Biophys. Res. Commun. 167:777-783(1990).
RL
CC
     -!- FUNCTION: Potentiates the beat of the ventricle, and has also
CC
         excitatory actions on the penis retractor muscle, the buccal
CC
         muscle and the identified neurons controlling the buccal muscle
CC
         movement of achatina.
CC
     -!- SIMILARITY: TO POSSIBLE PEPTIDE L5 FROM APLYSIA.
DR
     PIR; A34662; A34662.
KW
     Hormone; Amidation.
FT
    MOD RES
                  11
                                  AMIDATION.
                         11
SO
     SEQUENCE
                11 AA; 1305 MW; 82D6D5B9C7741365 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
            1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            2 S 2
Db
            1 S 1
RESULT 31
CORZ PERAM
     CORZ PERAM
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P11496;
DT
     01-OCT-1989 (Rel. 12, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Corazonin.
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
OX
     NCBI TaxID=6978;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Corpora cardiaca;
RX
     MEDLINE=89325572; PubMed=2753132;
RA
     Veenstra J.A.;
RT
     "Isolation and structure of corazonin, a cardioactive peptide from
RT
     the American cockroach.";
```

```
RL
     FEBS Lett. 250:231-234(1989).
CC
     -!- FUNCTION: Cardioactive peptide. Corazonin is probably involved
CC
         in the physiological regulation of the heart beat.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     PIR; S05002; S05002.
DR
KW
     Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
     MOD RES
FT
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
FT
                  11
                                  AMIDATION.
                         11
     SEQUENCE
SQ
                11 AA;
                        1387 MW; C7CFF32D6415AB46 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
  Matches
             1; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 S 2
Qу
Db
            6 S 6
RESULT 32
COXA CANFA
ID
     COXA CANFA
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P99501;
DT
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
     Cytochrome c oxidase polypeptide Va (EC 1.9.3.1) (Fragment).
DΕ
GN
     COX5A.
OS
     Canis familiaris (Dog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX
     NCBI_TaxID=9615;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Heart;
RX
     MEDLINE=98163340; PubMed=9504812;
RA
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RT
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
     dog heart proteins.";
     Electrophoresis 18:2795-2802(1997).
RL
CC
     -!- FUNCTION: This is the heme A-containing chain of cytochrome c
CC
         oxidase, the terminal oxidase in mitochondrial electron transport.
CC
     -!- CATALYTIC ACTIVITY: 4 ferrocytochrome c + O(2) = 4 ferricytochrome
CC
         c + 2 H(2)0.
CC
     -!- SUBCELLULAR LOCATION: Mitochondrial inner membrane.
CC
     -!- SIMILARITY: Belongs to the cytochrome c oxidase Va family.
DR
     HSC-2DPAGE; P99501; DOG.
DR
     InterPro; IPR003204; Cyt c ox5A.
DR
     Pfam; PF02284; COX5A; 1.
KW
     Oxidoreductase; Heme; Mitochondrion; Inner membrane.
FT
     NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA; 1274 MW;
                                  910B35C5B1AB11F5 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
                                 0; Mismatches
             1; Conservative
                                                                  0; Gaps
                                                                              0;
                                                    0; Indels
```

```
2 S 2
Qу
            1 S 1
Db
RESULT 33
CX5A CONAL
     CX5A CONAL
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P58848;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DΕ
     Conotoxin au5a.
OS
     Conus aulicus (Court cone).
OC
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
oc
     Neogastropoda; Conoidea; Conidae; Conus.
     NCBI TaxID=89437;
OX
RN
     [1]
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
     MEDLINE=99452958; PubMed=10521453;
RX
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     "The T-superfamily of conotoxins.";
RT
     J. Biol. Chem. 274:30664-30671(1999).
RL
RN
RP
     ERRATUM.
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
CC
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1436.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
     PIR; A59146; A59146.
DR
KW
     Toxin.
                   2
                           9
FT
     DISULFID
                   3
                         10
FT
     DISULFID
SQ
     SEQUENCE
                11 AA;
                        1441 MW; 21A36775440059D7 CRC64;
  Query Match
                           9.1%; Score 1; DB 1;
                                                    Length 11;
  Best Local Similarity
                          100.0%;
                                   Pred. No. 1e+05;
                                 0; Mismatches
                                                    0;
                                                                               0;
  Matches
             1; Conservative
                                                        Indels
                                                                   0;
                                                                       Gaps
            5 P 5
Qу
Db
            4 P 4
RESULT 34
CX5B CONAL
     CX5B CONAL
                    STANDARD;
                                    PRT;
                                            11 AA.
```

```
AC
     P58849;
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DE
     Conotoxin au5b.
OS
     Conus aulicus (Court cone).
OC
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OX
     NCBI TaxID=89437;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
RX
     MEDLINE=99452958; PubMed=10521453;
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RT
     "The T-superfamily of conotoxins.";
     J. Biol. Chem. 274:30664-30671(1999).
RL
RN
     [2]
RP
     ERRATUM.
RA
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RL
     J. Biol. Chem. 274:36030-36030(1999).
CC
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
         observed when injected into mice (By similarity).
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1388.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
DR
     PIR; B59146; B59146.
KW
     Toxin.
FT
     DISULFID
                   2
                           9
FT
     DISULFID
                   3
                          10 .
SQ
     SEQUENCE
                11 AA; 1393 MW;
                                   21A36775440042D7 CRC64;
  Query Match
                            9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1e+05;
  Matches
             1; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            5 P 5
Qу
Db
            4 · P 4
RESULT 35
CXL1 CONMR
     CXL1 CONMR
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P58807;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Lambda-conotoxin CMrVIA.
OS
     Conus marmoreus (Marble cone).
OC
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
```

```
NCBI TaxID=42752;
OX
RN
RP
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RC
     TISSUE=Venom;
RX
     MEDLINE=20564325; PubMed=10988292;
RA
     Balaji R.A., Ohtake A., Sato K., Gopalakrishnakone P., Kini R.M.,
RA
     Seow K.T., Bay B.-H.;
     "Lambda-conotoxins, a new family of conotoxins with unique disulfide
RT
RT
     pattern and protein folding. Isolation and characterization from the
RT
     venom of Conus marmoreus.";
RL
     J. Biol. Chem. 275:39516-39522(2000).
     -!- FUNCTION: Inhibits the neuronal noradrenaline transporter.
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1237.93; MW ERR=0.21; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the chi/lambda-conotoxin family.
KW
     Neurotoxin; Toxin; Hydroxylation.
FT
     DISULFID
                   2
                         11
FT
     DISULFID
                   3
                          8
     MOD RES
FΤ
                  10
                         10
                                   HYDROXYLATION.
     SEOUENCE
                                  277AAC60B7232B58 CRC64;
SQ
                11 AA; 1226 MW;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            3 K 3
Db
            6 K 6
RESULT 36
ES1 RAT
ID
     ES1 RAT
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P56571;
DT
     15-DEC-1998 (Rel. 37, Created)
     15-DEC-1998 (Rel. 37, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     ES1 protein, mitochondrial (Fragment).
OS
     Rattus norvegicus (Rat).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX
     NCBI TaxID=10116;
RN
     [1]
RP
     SEQUENCE.
     STRAIN=Wistar; TISSUE=Heart;
RC
     Li X.-P., Pleissner K.-P., Scheler C., Regitz-Zagrosek V., Salikov J.,
RA
RA
     Jungblut P.R.;
RL
     Submitted (SEP-1998) to Swiss-Prot.
CC
     -!- SUBCELLULAR LOCATION: Mitochondrial (Potential).
     -!- MISCELLANEOUS: By 2D-PAGE, the determined pI of this protein (spot
CC
CC
         P2) is: 8.9, its MW is: 25 kDa.
CC
     -!- SIMILARITY: BELONGS TO THE ES1 FAMILY.
KW
    Mitochondrion.
FT
    NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1142 MW; D862272D32C72DC2 CRC64;
```

OC

Neogastropoda; Conoidea; Conidae; Conus.

```
Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1e+05;
  Matches
                               0; Mismatches
             1; Conservative
                                                    0; Indels
                                                                  0;
                                                                              0;
                                                                      Gaps
            7 R 7
Qу
Db
            1 R 1
RESULT 37
FAR6 PENMO
     FAR6 PENMO
                                            11 AA.
                    STANDARD;
                                   PRT;
AC
     P83321;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     FMRFamide-like neuropeptide FLP6 (DGRTPALRLRF-amide).
OS
     Penaeus monodon (Penoeid shrimp).
     Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC
OC
     Eumalacostraca; Eucarida; Decapoda; Dendrobranchiata; Penaeoidea;
OC
     Penaeidae; Penaeus.
OX
     NCBI TaxID=6687;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Eyestalk;
RC
RX
     MEDLINE=21956277; PubMed=11959015;
     Sithigorngul P., Pupuem J., Krungkasem C., Longyant S.,
RA
     Chaivisuthangkura P., Sithigorngul W., Petsom A.;
RA
     "Seven novel FMRFamide-like neuropeptide sequences from the eyestalk
RT
RT
     of the giant tiger prawn Penaeus monodon.";
RL
     Comp. Biochem. Physiol. 131B:325-337(2002).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- MASS SPECTROMETRY: MW=1301.8; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
DR
     GO; GO:0007218; P:neuropeptide signaling pathway; TAS.
KW
     Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1301 MW;
                                  9A19C860072DC771 CRC64;
                           9.1%;
                                 Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                0; Mismatches
  Matches
             1; Conservative
                                                  0; Indels
                                                                              0;
                                                                  0; Gaps
            7 R 7
Qу
Db
            3 R 3
RESULT 38
FAR9 CALVO
     FAR9 CALVO
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
AC
     P41864;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DΤ
     01-NOV-1995 (Rel. 32, Last annotation update)
```

```
CalliFMRFamide 9.
DE
OS
     Calliphora vomitoria (Blue blowfly).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
OC
     Calliphoridae; Calliphora.
     NCBI_TaxID=27454;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Thoracic ganglion;
RC
     MEDLINE=92196111; PubMed=1549595;
RX
     Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA
RA
     Rehfeld J.F., Thorpe A.;
     "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT
     neuropeptides (designated calliFMRFamides) from the blowfly
RT
RT
     Calliphora vomitoria.";
     Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
RL
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
         family.
DR
     PIR; I41978; I41978.
KW
     Neuropeptide; Amidation.
     MOD RES
FT
                  11
                         11
                                   AMIDATION.
SO
     SEQUENCE
                11 AA;
                        1359 MW; 8160CE46CAA44321 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             1; Conservative
                                0; Mismatches
                                                                   0; Gaps
                                                                               0;
                                                    0; Indels
            2 S 2
Qу
            1 S 1
Db
RESULT 39
HS70 PINPS
ID
     HS70 PINPS
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P81672;
     15-JUL-1999 (Rel. 38, Created)
DT
     15-JUL-1999 (Rel. 38, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Heat shock 70 kDa protein (Fragment).
DE
OS
     Pinus pinaster (Maritime pine).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Pinus.
OC
OX
     NCBI TaxID=71647;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Needle:
RX
     MEDLINE=99274088; PubMed=10344291;
     Costa P., Pionneau C., Bauw G., Dubos C., Bahrman N., Kremer A.,
RA
RA
     Frigerio J.-M., Plomion C.;
RT
     "Separation and characterization of needle and xylem maritime pine
RT
     proteins.";
RL
     Electrophoresis 20:1098-1108(1999).
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this protein
CC
         (spot N164) is: 5.4, its MW is: 73 kDa.
CC
     -!- SIMILARITY: Belongs to the heat shock protein 70 family.
KW
     ATP-binding; Heat shock; Multigene family.
```

```
FT
    NON TER
                      1
    NON TER 11
FT
                      11
    SEQUENCE 11 AA; 1228 MW; 037C1BE8DAA44DD0 CRC64;
SQ
                        9.1%; Score 1; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1e+05;
 Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
          9 I 9
QУ
           3 I 3
Db
RESULT 40
LPW THETH
ID
    LPW THETH
                  STANDARD; PRT;
                                      11 AA.
    P05624;
AC
    01-NOV-1988 (Rel. 09, Created)
DT
    01-NOV-1988 (Rel. 09, Last sequence update) 30-MAY-2000 (Rel. 39, Last annotation update)
DT
DT
    Trp operon leader peptide.
DE
    TRPL.
GN
OS
    Thermus thermophilus.
    Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC
OC
    Thermus.
    NCBI TaxID=274;
OX
RN
    [1]
RP
    SEQUENCE FROM N.A.
    STRAIN=HB8 / ATCC 27634;
RC
    MEDLINE=89000781; PubMed=2844259;
RX
    Sato S., Nakada Y., Kanaya S., Tanaka T.;
RA
    "Molecular cloning and nucleotide sequence of Thermus thermophilus
RΤ
RT
    HB8 trpE and trpG.";
    Biochim. Biophys. Acta 950:303-312(1988).
RL
    -!- FUNCTION: THIS PROTEIN IS INVOLVED IN CONTROL OF THE BIOSYNTHESIS
CC
CC
        OF TRYPTOPHAN.
    ______
CC
    This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
    the European Bioinformatics Institute. There are no restrictions on its
CC
CC
    use by non-profit institutions as long as its content is in no way
    modified and this statement is not removed. Usage by and for commercial
CC
    entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC
    or send an email to license@isb-sib.ch).
CC
    _____
CC
DR
    EMBL; X07744; CAA30565.1; -.
KW
    Tryptophan biosynthesis; Leader peptide.
    SEQUENCE 11 AA; 1228 MW; 364B295A772DC5A7 CRC64;
SQ
 Query Match
                        9.1%; Score 1; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1e+05;
 Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
          1 A 1
Qу
           2 A 2
Db
```

```
RESULT 41
LSK1 LEUMA
ID
     LSK1 LEUMA
                     STANDARD;
                                    PRT;
                                            11 AA.
     P04428;
AC
     13-AUG-1987 (Rel. 05, Created)
DT
DT
     13-AUG-1987 (Rel. 05, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DE
     Leucosulfakinin-I (LSK-I).
OS
     Leucophaea maderae (Madeira cockroach).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
     Blaberidae; Leucophaea.
OX
     NCBI TaxID=6988;
RN
     [1]
RP
     SEOUENCE.
     MEDLINE=86315858; PubMed=3749893;
RX
RA
     Nachman R.J., Holman G.M., Haddon W.F., Ling N.;
     "Leucosulfakinin, a sulfated insect neuropeptide with homology to
RT
RТ
     gastrin and cholecystokinin.";
     Science 234:71-73(1986).
RL
     -!- FUNCTION: Change the frequency and amplitude of contractions of
CC
CC
         the hingut. Inhibits muscle contraction of hindgut.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     PIR; A01622; GMROL.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; 1.
KW
     Hormone; Amidation; Sulfation.
FT
     MOD RES
                   6
                           6
                                  SULFATION.
FT
     MOD RES
                  11
                          11
                                   AMIDATION.
SQ
     SEQUENCE
                11 AA;
                        1459 MW; 7E4E0680E86B5AAB CRC64;
  Query Match
                            9.1%; Score 1; DB 1;
                                                    Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1e+05;
  Matches
             1; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                               0;
                                                                   0;
                                                                       Gaps
            7 R 7
Qу
           10 R 10
Db
RESULT 42
LSKP PERAM
     LSKP PERAM
ID
                    STANDARD:
                                    PRT:
                                            11 AA.
     P36885;
AC
DT
     01-JUN-1994 (Rel. 29, Created)
DT
     01-JUN-1994 (Rel. 29, Last sequence update)
     01-FEB-1996 (Rel. 33, Last annotation update)
DT
DΕ
     Perisulfakinin (Pea-SK-I).
OS
     Periplaneta americana (American cockroach).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
OX
     NCBI TaxID=6978;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Corpora cardiaca;
```

```
RA
     Veenstra J.A.;
     "Isolation and structure of two gastrin/CCK-like neuropeptides from
RT
     the American cockroach homologous to the leucosulfakinins.";
RT
     Neuropeptides 14:145-149(1989).
RL
     -!- FUNCTION: Stimulates hindgut contractions.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     PIR; A60656; A60656.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; 1.
DR
KW
     Hormone; Amidation; Sulfation.
FT
     MOD RES
                   6
                          6
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1445 MW; 8B4E0680E86B5AAA CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
            7 R 7
QУ
           10 R 10
Db
RESULT 43
MHBI KLEPN
     MHBI KLEPN
                                   PRT;
                                           11 AA.
ID
                    STANDARD;
     P80580;
AC
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
     01-NOV-1997 (Rel. 35, Last annotation update)
DT
     Maleylpyruvate isomerase (EC 5.2.1.4) (Fragment).
DE
GN
     MHBI.
os
     Klebsiella pneumoniae.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Klebsiella.
OC
     NCBI TaxID=573;
OX
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=96349117; PubMed=8760924;
RX
     Robson N.D., Parrott S., Cooper R.A.;
RA
     "In vitro formation of a catabolic plasmid carrying Klebsiella
RT
     pneumoniae DNA that allows growth of Escherichia coli K-12 on 3-
RT
RT
     hydroxybenzoate.";
     Microbiology 142:2115-2120(1996).
RL
     -!- CATALYTIC ACTIVITY: 3-maleylpyruvate = 3-fumarylpyruvate.
CC
KW
     Isomerase.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1387 MW;
                                  1EE0E2DD49C9D5AB CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                               0;
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
            3 K 3
Qy
            2 K 2
Db
```

MEDLINE=90137190; PubMed=2615921;

RX

```
RESULT 44
MLG THETS
ID
     MLG THETS
                    STANDARD;
                                    PRT:
                                            11 AA.
     P41989;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
DΤ
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
     Melanotropin gamma (Gamma-melanocyte stimulating hormone) (Gamma-MSH).
DΕ
os
     Theromyzon tessulatum (Leech).
OC
     Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC
     Rhynchobdellida; Glossiphoniidae; Theromyzon.
OX
     NCBI TaxID=13286;
RN
     [1]
RP
     SEOUENCE.
RC
     TISSUE=Brain;
     MEDLINE=94298944; PubMed=8026574;
RX
RA
     Salzet M., Wattez C., Bulet P., Malecha J.;
     "Isolation and structural characterization of a novel peptide related
RT
     to gamma-melanocyte stimulating hormone from the brain of the leech
RT
     Theromyzon tessulatum.";
RT
     FEBS Lett. 348:102-106(1994).
RL
     -!- SIMILARITY: Belongs to the POMC family.
CC
     PIR; S45698; S45698.
DR
     Hormone; Amidation.
KW
     MOD RES
                                   AMIDATION.
FT
                 1.1
                          11
                                   2DB8FACE6409C1E8 CRC64;
     SEQUENCE
                11 AA; 1486 MW;
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                               0;
             1; Conservative
                                                                       Gaps
            3 K 3
Qу
           10 K 10
Db
RESULT 45
NUHM CANFA
     NUHM CANFA
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P49820;
     01-OCT-1996 (Rel. 34, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     NADH-ubiquinone oxidoreductase 24 kDa subunit (EC 1.6.5.3)
DΕ
     (EC 1.6.99.3) (Fragment).
     NDUFV2.
GN
OS
     Canis familiaris (Dog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
oc
OX
     NCBI TaxID=9615;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Heart;
     MEDLINE=98163340; PubMed=9504812;
RX
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RA
```

```
RT
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
     dog heart proteins.";
RT
RL
     Electrophoresis 18:2795-2802(1997).
     -!- FUNCTION: TRANSFER OF ELECTRONS FROM NADH TO THE RESPIRATORY
CC
CC
         CHAIN. THE IMMEDIATE ELECTRON ACCEPTOR FOR THE ENZYME IS BELIEVED
         TO BE UBIQUINONE. COMPONENT OF THE FLAVOPROTEIN-SULFUR (FP)
CC
CC
         FRAGMENT OF THE ENZYME.
     -!- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.
CC
     -!- CATALYTIC ACTIVITY: NADH + acceptor = NAD(+) + reduced acceptor.
CC
     -!- COFACTOR: Binds 1 2Fe-2S cluster (Potential).
CC
     -!- SUBUNIT: Mammalian complex I is composed of 45 different subunits.
CC
     -!- SUBCELLULAR LOCATION: Matrix and cytoplasmic side of the
CC
        mitochondrial inner membrane.
CC
    -!- SIMILARITY: Belongs to the complex I 24 kDa subunit family.
CC
     HSC-2DPAGE; P49820; DOG.
DR
     InterPro; IPR002023; Cmplx1 24kDa.
DR
DR
     PROSITE; PS01099; COMPLEX1 24K; PARTIAL.
     Oxidoreductase; NAD; Ubiquinone; Mitochondrion; Metal-binding;
KW
KW
     Iron-sulfur; Iron; 2Fe-2S.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1099 MW; 267F5369C9C72DD8 CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                                                              0;
            1; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            1 A 1
Qу
              -
            2 A 2
Db
RESULT 46
NXSN PSETE
     NXSN PSETE
                    STANDARD;
                                   PRT;
ID
                                           11 AA.
AC
     P59072;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Short neurotoxin N1 (Alpha neurotoxin) (Fragment).
DE
     Pseudonaja textilis (Eastern brown snake).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
     Elapidae; Acanthophiinae; Pseudonaja.
OC
     NCBI TaxID=8673;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Venom;
RX
     MEDLINE=99449602; PubMed=10518793;
     Gong N.L., Armugam A., Jeyaseelan K.;
RA
RT
     "Postsynaptic short-chain neurotoxins from Pseudonaja textilis: cDNA
RT
     cloning, expression and protein characterization.";
RL
     Eur. J. Biochem. 265:982-989(1999).
CC
     -!- FUNCTION: Lethal neurotoxin, binds and inhibits nicotinic
CC
         acetylcholine receptors (nAChR).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Expressed by the venom gland.
CC
CC
     -!- MASS SPECTROMETRY: MW=6236; METHOD=Electrospray.
```

```
CC
     -!- MISCELLANEOUS: LD(50) is 0.84 mg/kg by intravenous injection.
CC
     -!- SIMILARITY: Belongs to the snake toxin family.
     InterPro; IPR003571; Snake toxin.
DR
     PROSITE; PS00272; SNAKE TOXIN; PARTIAL.
DR
     Toxin; Neurotoxin; Postsynaptic neurotoxin;
KW
KW
     Acetylcholine receptor inhibitor; Multigene family.
     UNSURE
FT
                   3
                          3
     NON TER
                  11
FT
                         11
     SEQUENCE
                11 AA; 1319 MW; 0D1EF0C81B58732B CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
            3 K 3
Qу
            5 K 5
Db
RESULT 47
PKC1 CARMO
ID
     PKC1 CARMO
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82684;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
     Pyrokinin-1 (Cam-PK-1) (FXPRL-Amide).
DE
OS
     Carausius morosus (Indian stick insect).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Phasmatodea; Euphasmida; Phasmatoidea;
OC
OC
     Heteronemiidae; Carausius.
OX
     NCBI TaxID=7022;
RN
     [1]
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Corpora cardiaca;
RA
     Predel R., Kellner R., Gaede G.;
RT
     "Myotropic neuropeptides from the retrocerebral complex of the stick
RT
     insect, Carausius morosus (Phasmatodea: Lonchodidae).";
RL
     Eur. J. Entomol. 96:275-278(1999).
CC
     -!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
CC
         activity).
     -!- MASS SPECTROMETRY: MW=1235; METHOD=MALDI.
CC
CC
     -!- SIMILARITY: Belongs to the pyrokinin family.
DR
     InterPro; IPR001484; Pyrokinin.
DR
     PROSITE; PS00539; PYROKININ; FALSE NEG.
     Neuropeptide; Amidation; Pyrokinin.
KW
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1236 MW; 2BFA5225BB46C1A8 CRC64;
  Query Match
                           9.1%; Score 1; DB 1;
                                                   Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
            1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            5 P 5
Qу
Db
            9 P 9
```

```
PQQC PSEFL
     PQQC PSEFL
                   STANDARD;
                                  PRT; 11 AA.
    P55173;
AC
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
    Coenzyme PQQ synthesis protein C (Pyrroloquinoline quinone
DE
    biosynthesis protein C) (Fragment).
DE
GN
    POOC.
OS
    Pseudomonas fluorescens.
    Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
OC
    Pseudomonadaceae; Pseudomonas.
OX
    NCBI TaxID=294;
RN
    [1]
RP
    SEQUENCE FROM N.A.
RC
     STRAIN=CHA0;
    MEDLINE=96064397; PubMed=8526497;
RX
     Schnider U., Keel C., Defago G., Haas D.;
RA
     "Tn5-directed cloning of pqq genes from Pseudomonas fluorescens CHAO:
RT
    mutational inactivation of the genes results in overproduction of the
RT
    antibiotic pyoluteorin.";
RT
    Appl. Environ. Microbiol. 61:3856-3864(1995).
RL
    -!- PATHWAY: Pyrroloquinoline quinone (PQQ) biosynthesis.
CC
    -!- SIMILARITY: Belongs to the pqqC family.
CC
     ______
CC
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    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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     the European Bioinformatics Institute. There are no restrictions on its
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    use by non-profit institutions as long as its content is in no way
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    modified and this statement is not removed. Usage by and for commercial
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    or send an email to license@isb-sib.ch).
CC
CC
     EMBL; X87299; CAA60734.1; -.
DR
     PIR; S58244; S58244.
DR
     HAMAP; MF 00654; -; 1.
DR
KW
     PQQ biosynthesis.
FT
     NON TER
               11
                        11
               11 AA; 1182 MW; 89DF46E4C5B73771 CRC64;
     SEQUENCE
SQ
                          9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+05;
            1; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
  Matches
            5 P 5
Qу
            5 P 5
Db
RESULT 49
RANC RANPI
     RANC RANPI
                                  PRT;
                                          11 AA.
ID
                   STANDARD;
AC
     P08951;
DT
     01-NOV-1988 (Rel. 09, Created)
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
```

RESULT 48

```
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Ranatensin-C.
     Rana pipiens (Northern leopard frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8404;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
    MEDLINE=84131098; PubMed=6141890;
RX
RA
     Nakajima T.;
RL
     Unpublished results, cited by:
RL
     Erspamer V., Erspamer G.F., Mazzanti G., Endean R.;
     Comp. Biochem. Physiol. 77C:99-108(1984).
RL
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the bombesin/neuromedin B/ranatensin
CC
         family.
     InterPro; IPR000874; Bombesin.
DR
     Pfam; PF02044; Bombesin; 1.
DR
DR
     PROSITE; PS00257; BOMBESIN; 1.
     Amphibian defense peptide; Bombesin family; Amidation.
KW
     MOD RES
                                  AMIDATION.
FT
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1304 MW; D6C9885A61ADC366 CRC64;
                                  Score 1; DB 1; Length 11;
                           9.1%;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
                                                                              0;
  Matches
             1; Conservative
                                                  0; Indels
                                                                  0; Gaps
            5 P 5
QУ
            3 P 3
Db
RESULT 50
RE41 LITRU
ΙD
     RE41 LITRU
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82074:
AC
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DΤ
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Rubellidin 4.1.
     Litoria rubella (Desert tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=104895;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
RA
     Tyler M.J., Wallace J.C.;
RA
     "The structure of new peptides from the Australin red tree frog
RT
     'Litoria rubella'. The skin peptide profile as a probe for the study
RT
     of evolutionary trends of amphibians.";
RT
     Aust. J. Chem. 49:955-963(1996).
RL
CC
     -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
```

```
CC
        activity.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC
     -!- MASS SPECTROMETRY: MW=1039; METHOD=FAB.
CC
KW
     Amphibian defense peptide; Amidation.
FT
    MOD RES
                  11
                        11
                                  AMIDATION.
     SEQUENCE
               11 AA; 1040 MW; 84ED5CBC2877205A CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1e+05;
           1; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                             0;
            9 I 9
Qу
            5 I 5
Db
RESULT 51
RRPL CHAV
ID
    RRPL CHAV
                    STANDARD;
                                  PRT;
                                          11 AA.
     P13179;
AC
DT
     01-JAN-1990 (Rel. 13, Created)
     01-JAN-1990 (Rel. 13, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     RNA polymerase beta subunit (EC 2.7.7.48) (Large structural protein)
DE
DE
     (L protein) (Fragment).
GN
    Chandipura virus (strain I653514).
OS
OC
    Viruses; ssRNA negative-strand viruses; Mononegavirales;
OC
    Rhabdoviridae; Vesiculovirus.
    NCBI TaxID=11273;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
    MEDLINE=89299473; PubMed=2741347;
RX
RA
    Masters P.S., Bhella R.S., Butcher M., Patel B., Ghosh H.P.,
RA
    Banerjee A.K.;
     "Structure and expression of the glycoprotein gene of Chandipura
RT
RT
    virus.";
RL
    Virology 171:285-290(1989).
CC
     -!- FUNCTION: THIS PROTEIN IS PROBABLY A COMPONENT OF THE ACTIVE
CC
         POLYMERASE. IT MAY FUNCTION IN RNA SYNTHESIS, CAPPING, AS WELL AS
CC
         METHYLATION OF CAPS, AND POLY(A) SYNTHESIS.
     -!- CATALYTIC ACTIVITY: N nucleoside triphosphate = N diphosphate +
CC
CC
         \{RNA\}(N).
CC
    -!- SUBUNIT: THOUGHT TO FORM A TRANSCRIPTION COMPLEX WITH THE
CC
        NUCLEOCAPSID (N) PROTEIN.
CC
     -!- SIMILARITY: WITH THE L PROTEIN OF OTHER RHABDOVIRUSES AND
CC
        PARAMYXOVIRUSES.
CC
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```
DR
     EMBL; J04350; AAA42917.1; -.
     Transferase; RNA-directed RNA polymerase.
KW
FT
     NON TER
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1189 MW; 0335D6E3AAB2D764 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             1; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            8 N 8
Qy
              1
Db
            4 N 4
RESULT 52
RS30 ONCMY
     RS30 ONCMY
                    STANDARD;
ID
                                   PRT:
                                           11 AA.
AC
     P83328;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     40S ribosomal protein S30 (Fragment).
GN
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
     NCBI TaxID=8022;
RN
RP
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin mucus;
RX
     MEDLINE=22142142; PubMed=12147245;
RA
     Fernandes J.M.O., Smith V.J.;
RT
     "A novel antimicrobial function for a ribosomal peptide from rainbow
RT
     trout skin.";
RL
     Biochem. Biophys. Res. Commun. 296:167-171(2002).
CC
     -!- FUNCTION: Has antibacterial activity against Gram-positive
CC
CC
     -!- MASS SPECTROMETRY: MW=6676.6; METHOD=MALDI.
     -!- SIMILARITY: Belongs to the S30E family of ribosomal proteins.
CC
KW
     Ribosomal protein; Antibiotic.
FT
     NON TER
                  11
                         11
     SEOUENCE
SO
                11 AA; 1123 MW; 2312AB630DD735B8 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                        100.0%; Pred. No. 1e+05;
  Matches
             1; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            3 K 3
Db
            1 K 1
RESULT 53
T2P1 PROVU
ID
     T2P1 PROVU
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P31031;
```

```
01-JUL-1993 (Rel. 26, Created)
DΤ
     01-JUL-1993 (Rel. 26, Last sequence update)
\mathbf{DT}
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Type II restriction enzyme PvuI (EC 3.1.21.4) (Endonuclease PvuI)
DE
DE
     (R.PvuI) (Fragment).
GN
     PVUIR.
OS
     Proteus vulgaris.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Proteus.
OX
     NCBI TaxID=585;
     [1]
RN
RP
     SEQUENCE FROM N.A.
     STRAIN=ATCC 13315;
RC
     MEDLINE=93087186; PubMed=1454536;
RX
RA
     Smith M.D., Longo M., Gerard G.F., Chatterjee D.K.;
     "Cloning and characterization of genes for the PvuI restriction and
RT
RT
     modification system.";
RL
     Nucleic Acids Res. 20:5743-5747(1992).
     -!- FUNCTION: RECOGNIZES THE DOUBLE-STRANDED SEQUENCE CGATCG AND
CC
CC
        CLEAVES AFTER T-4.
CC
     -!- CATALYTIC ACTIVITY: Endonucleolytic cleavage of DNA to give
CC
        specific double-stranded fragments with terminal 5'-phosphates.
CC
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CC
     ______
DR
     EMBL; L04163; AAA25660.1; -.
DR
     PIR; S35490; S35490.
DR
    REBASE; 1541; PvuI.
KW
    Restriction system; Hydrolase; Nuclease; Endonuclease.
FT
                 1
                        1
     SEQUENCE
SO
               11 AA; 1300 MW; 9F0CDE7955B72B1A CRC64;
  Query Match
                         9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1e+05;
  Matches
            1; Conservative
                             0; Mismatches
                                              0; Indels
                                                              0; Gaps
                                                                          0;
           9 I 9
Qу
           1 I 1
RESULT 54
TIN1 HOPTI
ID
    TIN1 HOPTI
                   STANDARD;
                                PRT;
                                         11 AA.
AC
    P82651;
    16-OCT-2001 (Rel. 40, Created)
    16-OCT-2001 (Rel. 40, Last sequence update)
DT
    15-MAR-2004 (Rel. 43, Last annotation update)
DE
OS
    Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
```

```
Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
     Hoplobatrachus.
OC
OX
     NCBI TaxID=103373;
RN
     [1]
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
RC
     TISSUE=Skin secretion;
RX
     PubMed=11031261;
RA
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
     Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
     tigerina.";
RT
     J. Biol. Chem. 276:2701-2707(2001).
RL
СC
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- MASS SPECTROMETRY: MW=1342; METHOD=MALDI.
CC
KW
     Amphibian defense peptide; Antibiotic; Fungicide; Amidation.
                         10
FT
     DISULFID
                   2
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1344 MW; A2087DC960476056 CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             1; Conservative 0; Mismatches
  Matches
                                                    0; Indels
                                                                  0; Gaps 0;
Qy
            9 I 9
Db
            5 I 5
RESULT 55
TIN4 HOPTI
ID
     TIN4 HOPTI
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P82654;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Tigerinin-4.
OS
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
RΡ
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RC
     TISSUE=Skin secretion;
RX
     PubMed=11031261;
RA
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RT
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
     tigerina.";
RL
     J. Biol. Chem. 276:2701-2707(2001).
CC
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
```

OC

```
K₩
     Amphibian defense peptide; Antibiotic.
FT
     DISULFID
                   3
                         11
                11 AA; 1248 MW; 117D8EFD37605DCB CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1e+05;
          1; Conservative 0; Mismatches 0; Indels
                                                                               0;
  Matches
                                                                      Gaps
            7 R 7
Qy
              -
            1 R 1
Db
RESULT 56
TKC2 CALVO
ID
    TKC2 CALVO
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P41518;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
DT
DT
DE
     Callitachykinin II.
     Calliphora vomitoria (Blue blowfly).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Calliphoridae; Calliphora.
OX
     NCBI TaxID=27454;
RN
     [1]
RP
     SEQUENCE, AND SYNTHESIS.
     MEDLINE=95075727; PubMed=7984492;
RX
RA
     Lundquist C.T., Clottens F.L., Holman G.M., Nichols R., Nachman R.J.,
RA
     Naessel D.R.;
     "Callitachykinin I and II, two novel myotropic peptides isolated from
RT
RT
     the blowfly, Calliphora vomitoria, that have resemblances to
     tachykinins.";
RT
     Peptides 15:761-768(1994).
RL
     -!- FUNCTION: Myoactive peptide.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
KW
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                  11
                                  AMIDATION.
                        11
     SEQUENCE 11 AA; 1103 MW; 15D7E3F9C9CDD444 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
            1; Conservative 0; Mismatches 0; Indels
  Matches
                                                                  0; Gaps
                                                                               0;
            8 N 8
Qу
              - 1
Db
            4 N 4
RESULT 57
TKN1 PSEGU
ID
     TKN1 PSEGU
                                  PRT;
                                           11 AA.
                    STANDARD;
AC
     P42986;
DТ
     01-NOV-1995 (Rel. 32, Created)
```

-!- MASS SPECTROMETRY: MW=1247; METHOD=MALDI.

CC

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DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DΤ
     10-OCT-2003 (Rel. 42, Last annotation update)
     Kassinin-like peptide K-I (PG-KI).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; B60409; B60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
FT
     MOD RES
                                  AMIDATION.
                  11
                         11
                11 AA; 1269 MW; 3DBA7C37C9CB1AB7 CRC64;
     SEQUENCE
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                                               0;
  Matches
             1; Conservative
                                                    0; Indels
                                                                  0; Gaps
            5 P 5
Qу
            2 P 2
Dh
RESULT 58
TKN1 UPEIN
                                            11 AA.
     TKN1 UPEIN
                                   PRT;
ΙD
                    STANDARD;
АC
     P82026;
DT
     30-MAY-2000 (Rel. 39, Created)
     30-MAY-2000 (Rel. 39, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Uperin 1.1.
OS
     Uperoleia inundata (Floodplain toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
```

```
NCBI TaxID=104953;
OX
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     Bradford A.M., Raftery M.J., Bowie J.H., Tyler M.J., Wallace J.C.,
RA
RA
     Adams G.W., Severini C.;
RT
     "Novel uperin peptides from the dorsal glands of the australian
     floodplain toadlet Uperoleia inundata.";
RT
     Aust. J. Chem. 49:475-484(1996).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
CC
     -!- MASS SPECTROMETRY: MW=1208; METHOD=FAB.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     InterPro; IPR002040; Tachy Neurokinin.
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                  11
                         11
FT
                                   AMIDATION.
     SEQUENCE
                11 AA;
                        1226 MW;
                                  3293693E59CDD457 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
            1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
            1 A 1
Qу
            2 A 2
Db
RESULT 59
TKN1 UPERU
     TKN1 UPERU
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P08612;
DΤ
     01-AUG-1988 (Rel. 08, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Uperolein.
     Uperoleia rugosa (Wrinkled toadlet).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=8368;
RN
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=75131227; PubMed=1120493;
     Anastasi A., Erspamer V., Endean R.;
RA
     "Structure of uperolein, a physalaemin-like endecapeptide occurring
RT
RT
     in the skin of Uperoleia rugosa and Uperoleia marmorata.";
RL
     Experientia 31:394-395(1975).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
```

```
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          7
     MOD RES
                  11
                         11
FT
                                  AMIDATION.
     SEQUENCE
                11 AA; 1252 MW; 32867C3E59CDD457 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
             1; Conservative
                                                    0; Indels
                                                                  0; Gaps
            5 P 5
Qу
            2 P 2
Db
RESULT 60
TKN2 PSEGU
     TKN2 PSEGU
                    STANDARD;
                                   PRT;
                                            11 AA.
ID
AC
     P42987;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-II (PG-KII).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
     the Australian frog Pseudophryne guntheri.";
RT
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; C60409; C60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
```

```
Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
     MOD RES
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
                  11
     MOD RES
                         11
                                   AMIDATION.
FT
     SEQUENCE
                11 AA;
                        1246 MW;
                                  3A247C37C9CB1AB7 CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
             1; Conservative
                              0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            5 P 5
Qу
Db
            2 P 2
RESULT 61
TKN3 PSEGU
ID
     TKN3 PSEGU
                    STANDARD:
                                    PRT;
                                            11 AA.
AC
     P42988;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-III (PG-KIII).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; D60409; D60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
```

InterPro; IPR008215; Tachykinin.

DR

```
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1268 MW;
                                  3DBA7C37C9CB1457 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+05;
                                                                              0;
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
            1; Conservative
 Matches
            5 P 5
Qy
             2 P 2
Db
RESULT 62
TKN4 PSEGU
                                           11 AA.
     TKN4 PSEGU
                                   PRT:
                    STANDARD;
AC
     P42989;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P-like peptide I (PG-SPI).
DE
os
     Pseudophryne guentheri (Guenther's toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OC
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Skin secretion;
RC
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; E60409; E60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1294 MW; 3A247C2CC9CB1AB7 CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
                                                                  0; Gaps
                                                                              0;
             1; Conservative
                                                   0; Indels
  Matches
```

```
Qу
            2 P 2
Db
RESULT 63
TKN5 PSEGU
     TKN5 PSEGU
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P42990;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P-like peptide II (PG-SPII).
DΕ
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
     NCBI TaxID=30349;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; F60409; F60409.
DR
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                   1
                          1
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                        1293 MW;
                                  3A247C2CC9CB1457 CRC64;
SQ
                11 AA;
  Query Match
                           9.18;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%;
                                   Pred. No. 1e+05;
  Matches
             1;
                Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                     Gaps
                                                                               0;
Qу
            5 P 5
Db
            2 P 2
```

RESULT 64 TKNA CHICK 5 P 5

```
TKNA CHICK
ID
                    STANDARD:
                                    PRT:
                                            11 AA.
     P19850;
AC
DT
     01-FEB-1991 (Rel. 17, Created)
     01-FEB-1991 (Rel. 17, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DΕ
     Gallus gallus (Chicken).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
OC
     Gallus.
     NCBI TaxID=9031;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Intestine;
     MEDLINE=88204263; PubMed=2452461;
RX
     Conlon J.M., Katsoulis S., Schmidt W.E., Thim L.;
RA
     "[Arg3] substance P and neurokinin A from chicken small intestine.";
RT
     Regul. Pept. 20:171-180(1988).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; JN0023; JN0023.
DR
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1377 MW; 21487FE3C9D6C6C7 CRC64;
SQ
     SEQUENCE
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                                                   0; Gaps
                                                                               0;
            1; Conservative
                                 0; Mismatches
                                                    0; Indels
  Matches
            7 R 7
Qу
            1 R 1
Db
RESULT 65
TKN PHYFU
                                    PRT;
                                            11 AA.
     TKN PHYFU
                    STANDARD;
ID
     P08615;
AC
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Physalaemin.
     Physalaemus fuscumaculatus (Neotropical frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Leptodactylidae;
OC
     Leptodactylinae; Physalaemus.
OC
OX
     NCBI TaxID=8378;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
```

```
MEDLINE=66076612; PubMed=5857249;
RX
     Erspamer V., Anastasi A., Bertaccini G., Cei J.M.;
RA
     "Structure and pharmacological actions of physalaemin, the main
RT
     active polypeptide of the skin of Physalaemus fuscumaculatus.";
RT
     Experientia 20:489-490(1964).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; S07201; S07201.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                   1
                          1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
FT
                                  3293693E59C33457 CRC64;
     SEQUENCE
                11 AA; 1283 MW;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
  Matches
            1 A 1
Qу
              -1
Db
            2 A 2
RESULT 66
UF05 MOUSE
     UF05 MOUSE
                                   PRT:
                                            11 AA.
ID
                    STANDARD;
AC
     P38643;
DT
     01-OCT-1994 (Rel. 30, Created)
     01-OCT-1994 (Rel. 30, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page of fibroblasts (P48) (Fragment).
DΕ
OS
     Mus musculus (Mouse).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC
     NCBI TaxID=10090;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Fibroblast;
RC
     MEDLINE=95009907; PubMed=7523108;
RX
     Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RA
     "Separation and sequencing of familiar and novel murine proteins
RT
     using preparative two-dimensional gel electrophoresis.";
RT
     Electrophoresis 15:735-745(1994).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
CC
         protein is: 5.5, its MW is: 48 kDa.
                         11
FT
     NON TER
                  11
                11 AA; 1328 MW; E54835E5CAAABAFA CRC64;
     SEQUENCE
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
```

```
Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                              0; Mismatches 0; Indels
                                                                  0: Gaps 0;
 Matches
             1;
                Conservative
            3 K 3
Qу
            1 K 1
Db
RESULT 67
ULAG HUMAN
    ULAG HUMAN
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P31933;
     01-JUL-1993 (Rel. 26, Created)
DT
     01-JUL-1993 (Rel. 26, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page of liver tissue (Spot 118) (Fragment).
DE
    Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Liver;
     MEDLINE=94147969; PubMed=8313870;
RX
     Hughes G.J., Frutiger S., Paquet N., Pasquali C., Sanchez J.-C.,
RA
RA
     Tissot J.-D., Bairoch A., Appel R.D., Hochstrasser D.F.;
     "Human liver protein map: update 1993.";
RT
RL
     Electrophoresis 14:1216-1222(1993).
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 5.5, its MW is: 34 kDa.
     SWISS-2DPAGE; P31933; HUMAN.
DR
DR
     Siena-2DPAGE; P31933; -.
     NON TER
                         11
FT
                  11
     SEQUENCE
                11 AA; 1219 MW;
                                  EDABD37F272DDB0A CRC64;
SQ
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+05;
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
            1 A 1
Qу
              - 1
            6 A 6
Db
RESULT 68
UXB2 YEAST
     UXB2 YEAST
                                   PRT;
                                            11 AA.
                    STANDARD;
ID
AC
     P99013;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page (Spot 2D-000K2F) (Fragment).
DΕ
     Saccharomyces cerevisiae (Baker's yeast).
OS
     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OC
OX
     NCBI TaxID=4932;
RN
     [1]
```

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RP
     SEQUENCE.
     STRAIN=X2180-1A;
RC
RA
     Sanchez J.-C., Golaz O., Schaller D., Morch F., Frutiger S.,
     Hughes G.J., Appel R.D., Deshusses J., Hochstrasser D.F.;
RA
     Submitted (AUG-1995) to Swiss-Prot.
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 6.20, its MW is: 9.2 kDa.
CC
     SWISS-2DPAGE; P99013; YEAST.
DR
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1328 MW; EC38021C0DCB42DA CRC64;
SO
  Query Match
                            9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1e+05;
  Matches
             1; Conservative
                                0; Mismatches
                                                     0; Indels
                                                                   0:
                                                                       Gaps
                                                                                0:
            1 A 1
Qу
            7 A 7
Db
RESULT 69
CA31 LITCI
     CA31 LITCI
                    STANDARD;
                                    PRT;
ID
                                            11 AA.
AC
     P82089;
     16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 3.1/3.1Y4.
OS
     Litoria citropa (Australian blue mountains tree frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.144 differs from isoform 3.1 in not being
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1407; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                           1
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   4
                           4
                                   SULFATION.
FT
     MOD RES
                                   AMIDATION.
                  11
                         11
SO
     SEQUENCE
                11 AA; 1347 MW; 10DAB7D67861A86B CRC64;
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0.0%; Pred. No. 1.4e+05;
  Best Local Similarity
             0; Conservative
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
                                                   1; Indels
Qy
            1 A 1
Db
            1 Q 1
RESULT 70
CA32 LITCI
     CA32 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82090;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 3.2/3.2Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
     -!- PTM: Isoform 3.2Y4 differs from isoform 3.2 in not being
CC
         sulfated.
CC
CC
     -!- MASS SPECTROMETRY: MW=1423; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the qastrin/cholecystokinin family.
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
FT
     MOD RES
                   4
                          4
                                  SULFATION.
                  11
                         11
     MOD RES
                                  AMIDATION.
FT
                11 AA; 1363 MW; 10DAB8867861A86B CRC64;
SQ
     SEQUENCE
                           0.0%;
                                  Score 0; DB 1; Length 11;
  Query Match
                          0.0%; Pred. No. 1.4e+05;
  Best Local Similarity
             0; Conservative
                                 0; Mismatches
                                                   1; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            1 A 1
Qу
Db
            1 Q 1
```

0.0%; Score 0; DB 1; Length 11;

Query Match

Search completed: April 8, 2004, 15:47:18
Job time: 6.15385 secs